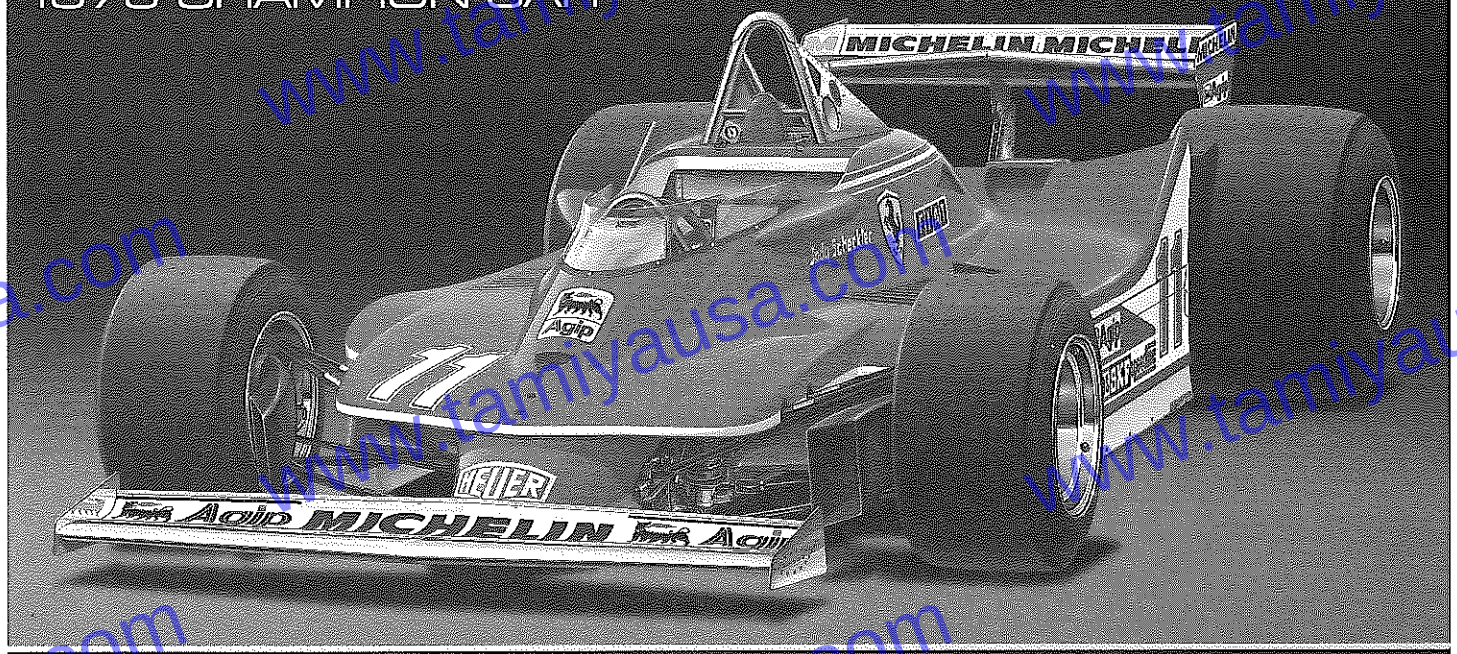
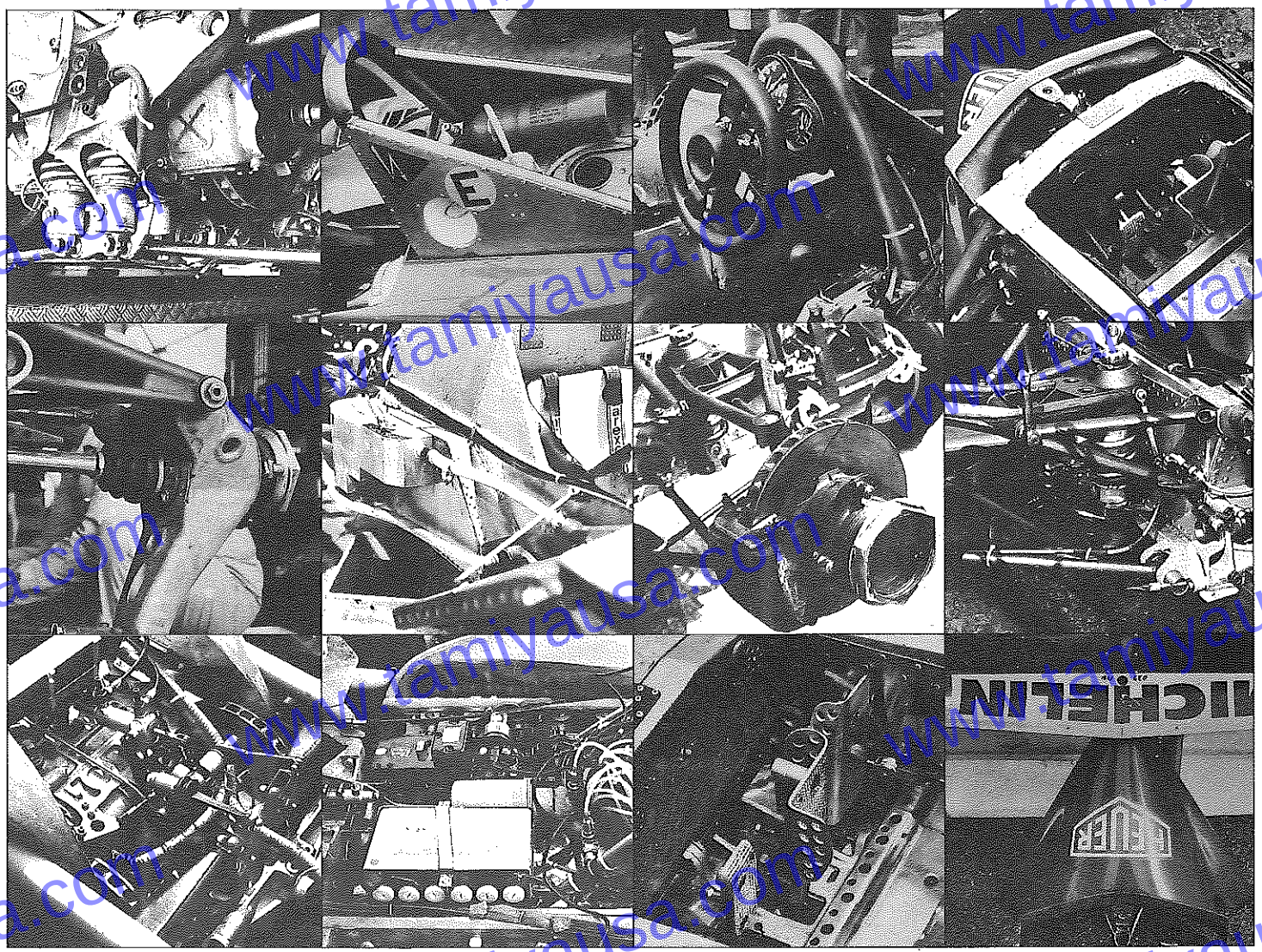
312T4

1979 CHAMPION CAR

TAMIYA



1/12th SCALE
BIG SCALE SERIES 35



www.tamiyausa.com

312T4

1979 CHAMPION CAR

F1 Grand Prix races for cars with 3 litre engines were held for the first time in 1966. The Lotus 72 and MacLaren M23 held dominant positions for several seasons, but with increased performance of the cars through technical improvements, no one car has been able to lead this class. 1979 was no exception. The first two races were won by Ligier with their new JS-11 and it seemed as if perhaps Ligier would have the ascendency throughout the season, but then the Ferrari 312T4 began winning. By the middle of the season, however, the Renault, equipped with a 1.5 litre turbo engine, began to show overwhelming speed and, at the same time, the FW-07 Williams was not often beaten. After a very exciting season with many changes in the leadership of the Championship tables, it was finally won by Jody Scheckter driving the Ferrari 312T4, which had proved a very reliable machine throughout the whole 1979 season.

Enzo Ferrari, who had been driver and manager for the Alfa Romeo team, started to manufacture racing cars in 1939 and since then he has gained many victories, the first being in the 1949 Grand Prix. Ferrari dominated the F1 class in 1952 and 1953. Many of its drivers have become champions whilst driving for the Ferrari Team: Juan Manuel Fangio in 1956, Mike Hawthorn in 1958, Phil Hill 1961 and John Surtees in 1964. After these early victories the Ferrari Team were not so successful and in 1967 and 1969 they were not to have one win. In 1970 the Ferrari 312B was completed. It had an entirely new horizontally opposed 12-cylinder engine and in the latter half of the season began to show its potential and, with Jacky Ickx or Clay Regazzoni driving, the team notched up four vitories and came close to winning the Championship. 1971 started off well for Ferrari, but unfortunately the car did not show its expected performance throughout the season. 1973 proved to be a disaster for the team, but in 1974 with the 312B3 the Ferrari Team came to the fore again. With Nicky Lauda or Regazzoni at the wheel this new car gained three victories and with the appearance of the 312T in 1975, Ferrari's comeback was complete. The 312T with its unique aerodynamic design won six Grand Prix in 1975, with Lauda becoming the Champion in 1977 and Scheckter the Champion in 1979. Ferrari also won the Constructors' Cup from 1975 to 1977 and in 1979. The Ferrari 312T4 made its debut in the South African Grand Prix held on March 3, 1979 with drivers Jody Scheckter and Gilles Villeneuve. In an astonishing finish Villeneuve won the race with Scheckter finishing second and this first and second finish for a new machine in its debut race was a record in Ferrari's history of Grand Prix racing. In the following US Grand Prix West, Villeneuve obtained the pole position and won the race with Scheckter again taking second place. Scheckter managed fourth place in the Spanish Grand Prix, but in the Belgian race, after having been placed only seventh in practice, he gained his first victory. In the Monaco Grand Prix, the Ferraris again were triumphant with Scheckter coming first and Villeneuve second. At this half way stage in the Grand Prix Championship Scheckter was leading. In 1979 the Championship was decided according to the total points obtained in the best four races in each half of the season. The opening event of the second half of 1979 saw Ferrari again in second place with Villeneuve at the wheel, but in the following British and German races the results for Ferrari were unsatisfactory with Scheckter only managing fifth and fourth places, but in the Australian Grand Prix Villeneuve finished second. Scheckter added steadily to his Championship points by coming second in the Dutch Grand Prix. On September 9th it was the turn of the Italian Grand Prix and, as is quite often the case, this race could decide the 1979 Championship. Ferraris were on their home ground and the crowd were very volatile in their encouragement of their 'own' team. In practice, Scheckter could only manage third and Villeneuve fifth places for the grid line up. However, by extremely clever driving Scheckter won the race with Villeneuve coming in second, and with this result the 1979 Championship became Scheckter's, to the delight of the Italian crowd. For the first time in thirteen years, Ferrari cars came first and second in front of their home crowd and this all added to the excitement of this unforgetable race. The Ferrari 312T4 continued to do well during the rest of the season with Villeneuve coming second in the Canadian Grand Prix and in the final race he gained his third victory.

Although the car only obtained pole position twice, there were only four retirements during the whole of the season and the strength of the 312T4 lay in its reliability. It is Ferrari's first ground effect car. A ground effect car is one utilizing the venturi effect obtaining a strong down force by regulating and utilizing the air flow under the chassis. The lower surfaces of the wide body sides are wing-shaped so as to form a very narrow space, the 'venturi,' between the lower surfaces and the road surface. Air flowing rearward through the venturi is accelerated. The body sides are provided with skirts of special material and these skirts are close to the road surface thus preventing air from entering the venturi from the sides. The air flows rearward very fast and produces negative pressure in the venturi which in turn gives a down force holding the car body close to the ground. For a ground effect car it is particularly necessary to provide a large space at the rear air outlet so as not to disturb the air flow. It was because the cam cover portion protruded into the air outlet that the horizontally opposed 12-cylinder engine of the Ferrari was thought to be unsuitable for use in a ground effect car. The unique style of the 312T4, designed on the basis of wind tunnel tests at Pininfarina, Trino, aimed at producing better effect by taking in as much air as possible. The lower surfaces of the side pontoons have delicate curves to increase the venturi effect. The pointed end of the nose cone is provided with a single-piece wing, to increase the ground contact of the front wheels. To mount the engine on the chassis of the 312T4, it has been made narrower by modifying the cam cover and cam shape. The exhaust pipes are tied together three by three, and are bent upward so as not to disturb air flow. The engine is said to have a maximum output of 515 hp. The figures "312" mean three-litre 12-cylinder and the letter "T" stands for transverse, which means that the gearbox developed by Ferrari is mounted transversely behind the engine. The "T" series, which has maintained its high potential since 1975 against such strong rivals as the MacLaren and Lotus, is considered to be one of Ferrari's masterpieces. With its aerodynamically designed body, the 312T4 proved in 1979 that it was possible to mount the horizontally opposed 12-cylinder engine on a ground effect car, and it proved worthy of the name Ferrari.

* * *

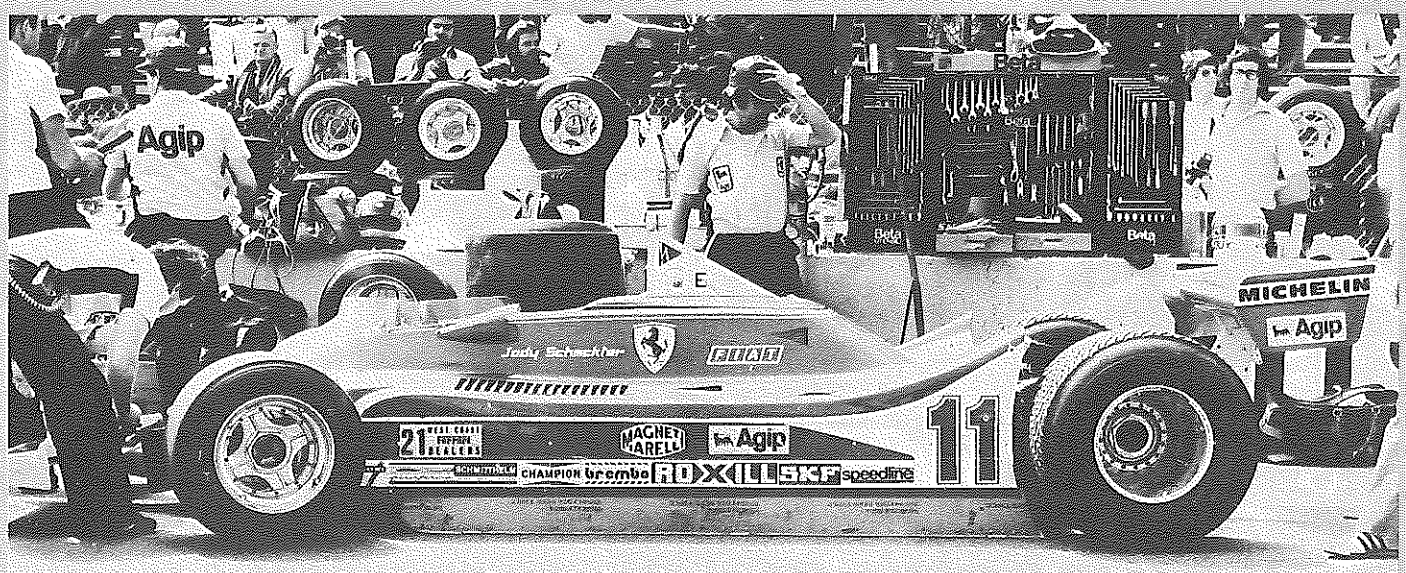
Im Grand Prix erschienen 3 Liter Wagen erstmals 1966. Lotus und MacLaren beherrschten zwar einige Saisons die Rennen, aber durch die erhöhte Leistung und die technischen Verbesserungen konnte keiner dieser Wagen die Klasse anführen. Auch 1979 nicht. Die ersten beiden Rennen wurden von Ligier mit dem neuen JS-11 gewonnen und es hatte den Anschein, dass Ligier grossen Einfluss auf die Saison 79 nehmen würde.

Mitte der Saison zeigte Renault mit einem 1,5*l* Turbomotor überwältigende Geschwindigkeiten und auch der Williams FW-07 war öfters vorne. Nun aber kam Ferrari mit dem neuen 312T4 auf die Soegerplätze.

Nach einer ausgezeichneten Saison und vielem Wechsel in der Führung, wurde Jody Scheckter Weltmeister. Dies zeigte, dass der Ferrari 312T4 ein sehr zuverlässiger Wagen in allen Rennen war.

Enzo Ferrari, selbst ein langjähriger Fahrer und Manager des Alfa-Romeo Teams, begann bereits 1939 Rennwagen zu bauen. Seit dieser Zeit konnte er viele Siege erringen, den ersten im Grand Prix 1949. Ferrari beherrschte auch die Formel 1 Klasse in den Jahren 1952 und 1953 und es gingen viele Weltmeister aus seinem Team hervor.

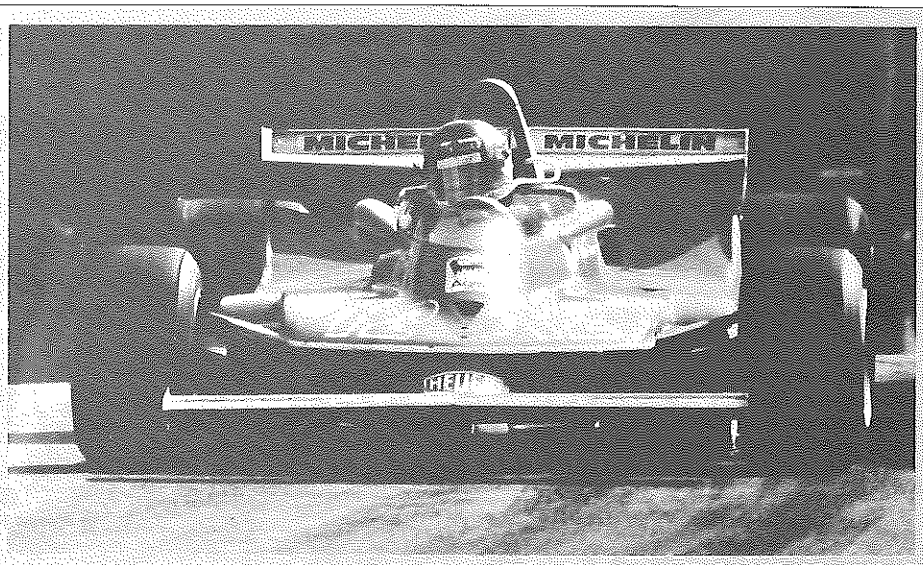
1956 Juan Manuel Fangio—1958 Mike Hawthorn

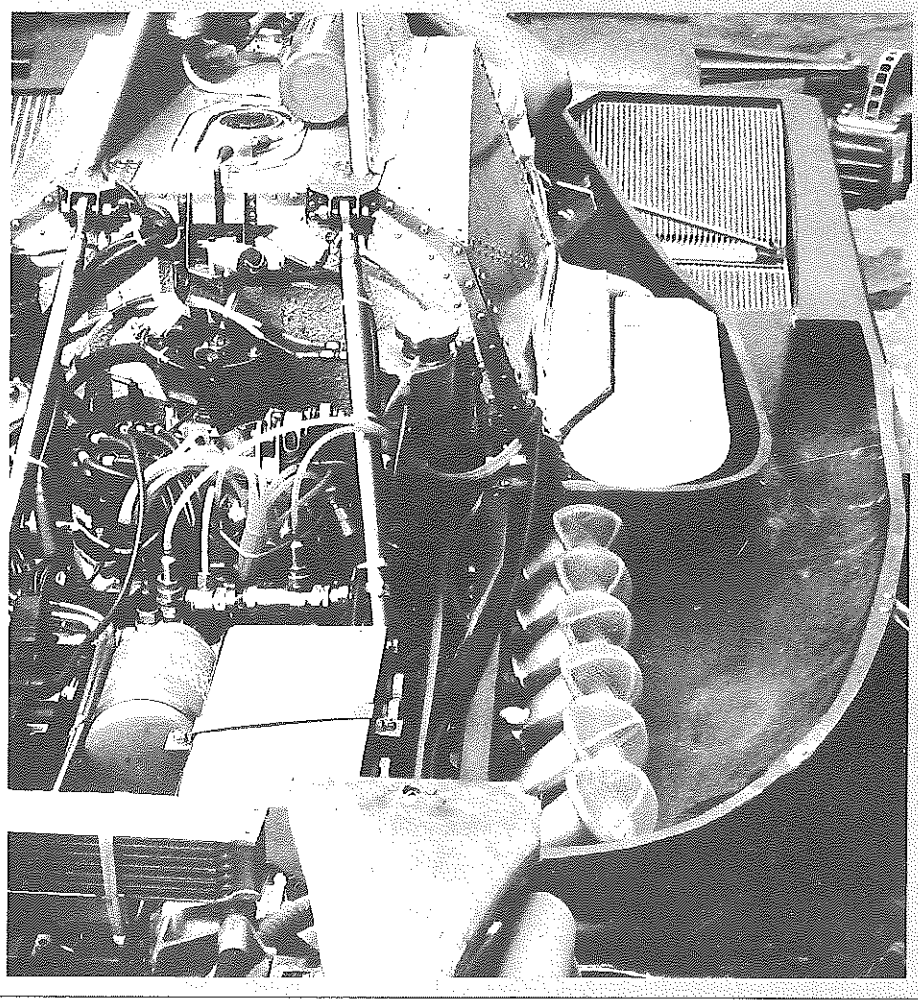


1961 Phil Hill—1964 John Surtees.
Dan kam eine ruhige Zeit für Ferrari—ohne Sieg. Erst 1970 war dann der neue Ferrari 312B einsatzbereit. Der Wagen hatte einen 12 Zylinder-Boxer-Motor.
In der letzten Hälfte der Saison zeigte er seine Stärke und Leistung mit Jacky Ickx und Clay Regazzoni am Steuer. Das Team errang 4 Siege und verfehlte knapp die Meisterschaft.
Das Jahr 1971 liess sich gut an, aber der Wagen brachte nicht die erwartete Ausdauer über die ganze Saison.
1973 lief alles schief, aber 1974 wurde mit dem Ferrari 312B3 der Anschluss erreicht.
Mit Nicki Lauda und Clay Regazzoni konnten 3 Siege verbucht werden. Der 312T jedoch brachte Ferrari sein Comeback.
Mit seiner einmaligen, aerodynamischen Form gewann der 312T 6 Grand Prix 1975.
Nicki Lauda wurde 1977 Weltmeister und Jody Scheckter 1979.
Am 3 März 1979 wurde der 312T4 erstmals im Grand Prix South Africa eingesetzt mit Jody Scheckter und Gilles villeneuve.
Es war ein einmaliger Sieg für Gilles Villeneuve, Jody Scheckter wurde Zweiter—ein toller Erfolg für Ferrari, mit einem neuem Wagen, gleich die ersten beiden Plätze im ersten Rennen zu belegen.
Dann kamen die Erfolge in dieser Saison:

US Grand Prix West:	Villeneuve Erster, Schekter Zweiter.
Grand Prix Spanien:	Scheckter Vierter.
Grand Prix Belgien:	Scheckter Erster.
Grand Prix Monaco:	Scheckter Erster, Villeneuve Zweiter.

Somit führte Scheckter die Weltmeisterschaft an. Den Eröffnungslauf der 2. Hälfte der Saison führte Ferrari mit Villeneuve wieder als Zweiter an. In den folgenden Rennen in England und Deutschland wurde Scheckter nur 5. bezw. 4., der Grand Prix Australien zeigte Villeneuve wieder als Zweiten.
Der 2. Platz für Scheckter im Grand Prix von Holland brachte weiterhin Punkte für die Meisterschaft.
Nun kam am 9. September der Grand Prix Italien. Auf einheimischen Boden belegten Scheckter im Training den 3. Platz, Villeneuve den 5. Platz. Wie so oft, brachte dieser Grand Prix die Entscheidung für die Weltmeisterschaft:
Scheckter wurde Sieger, Villeneuve Zweiter. Und —zur grossen Freude der Italiener, 1979 wurde Ferrari mit Scheckter Weltmeister. Zum ersten Male in 13 Jahren wurde Ferrari Erster und Zweiter im eigenem Lande. Ein unvergesslicher Sieg und Erfolg.
Im Grand Prix von Kanada wurde Villeneuve Zweiter und im Endlauf errang er seinen 3. Sieg. Nur vier Mal musste der Wagen aus den Rennen zurückgezogen werden, dies zeigt seine Stärke und Ausdauer sowie Zuverlässigkeit.
Der 312T4 ist der erste Wagen von Ferrari mit dem Bodenhaft-Effekt.
Ein Wagen mit Bodenhaft-Effekt erreicht einen starken Druck nach unten durch Regulierung und Verwendung der Luftströmung unter das Chassis. Die untere Fläche der breiten Karosserieseiten sind flügelförmig und drücken die Luftströmung zwischen die Unterfläche und Strassenoberfläche. Der Luftstrom kann durch die Windkanäle reguliert werden. Die Karosserieseiten haben Schürzen aus einem Spezialmaterial und liegen fast auf der Strasse auf, dies verhindert, dass von aussen der Luftstrom gestört wird.
Die Luft fliesst sehr schnell nach hinten ab und erzeugt einen Negativdruck im Windkanal, dies wiederum drückt den Wagen sehr stark nach unten. Entworfen wurde der Ferrari 312T4 von Pininfarina auf Grund eingehender Versuche im Windkanal soviel Luft wie möglich hereizuführen. Die seitlichen Pontoons haben eine ausgezeichnete Kurvenführung um den Luftstrom effektiv zu erhöhen.
Der Bug des Fahrzeuges ist einer Raketenspitze ähnlich mit einem Flügel zur Erhöhung des Bodenkontaktes der Vorderräder.
Das Chassis wurde schmäler gemacht, um den Motor montieren zu können.
Die Auspuffrohre sind jeweils 3 gebündelt und nach oben gezogen um den Luftstrom nicht zu stören. Der Motor hat eine max. Leistung von 515 HP. Die Zahlt 312 sagt, 3 Liter und 12 Zylinder, der Buchstabe "T" bedeutet Transverse (Quer) und zeigt dass das Getriebegehäuse quer hinter dem Motor angebracht ist.
Die "T" Serie hat sich seit 1975 gegen die starken Rivalen MacLaren und Lotus durch höchste Leistung behauptet und ist eine Meisterleistung von Ferrari.
Mit seiner aerodynamischen Karosserie bewies der 312T4, dass es möglich ist, den horizontalen Boxermotor mit 12 Zylindern, in einen Wagen mit Bodenhaft-Effekt einzubauen und für Wert befunden wird, den Namen Ferrari zu tragen.

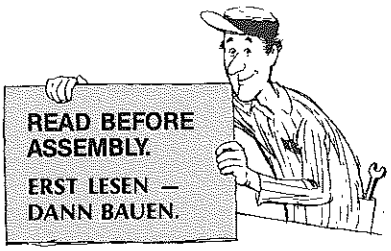




«Specifications of Ferrari 312T4»

Sponsor(s)	Fiat
Designer(s)	Mauro Forghieri
Team manager(s)	Enzo Ferrari, Marco Piccinini
Number of chassis built	5
ENGINE	
Type	Ferrari 312 Boxer
Fuel and oil	Agip
Sparking plugs	Champion
TRANSMISSION	
Gearbox/speeds	Ferrari 015 Trasversale (5)
Drive-shafts	Löbro/Ferrari
Clutch	Borg & Beck
CHASSIS	
Front suspension	Double wishbones, inboard springs
Rear suspension	Bottom wishbones, single top links, inboard springs
Suspension dampers	Koni
Wheel diameter	13 in front and rear
Wheel rim widths	11/12/13 in front 18/19 in rear
Tyres	Michelin
Brakes	Lockheed
Brake pads	Ferodo
Steering	Ferrari rack and pinion
Radiator(s)	Autokhüler
Fuel tanks	Pirelli/Superflexit
Battery	Varley
Instruments	Borletti
DIMENSIONS	
Wheelbase	106.3 in/2700mm
Track	67 in/1700mm front, 63 in/1600mm rear
Gearbox weight	121 lb/55kg
Formula weight	1312 lb/595kg
Fuel capacity	40.7 gals/185 litres

Photos credit SeL and Lucio Maggio



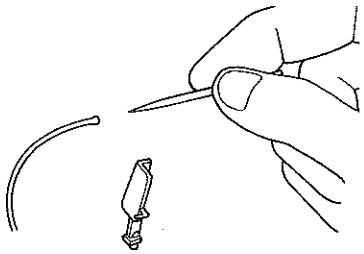
READ BEFORE ASSEMBLY.
ERST LESEN — DANN BAUEN.

★ Study the instructions and photographs before commencing assembly.
★ You will need a sharp knife, a screwdriver, a file and a pair of pliers.
★ Do not break parts away from sprue, but cut off carefully with a pair of pliers.
★ Use cement sparingly. Use only enough to make a good bond.
★ Apply cement to both parts to be joined.
This mark shows the colour.

★ Vor Beginn die Bauanleitung studieren und den Nummern nach die Elemente zusammenbauen.
★ Bauteile nicht vom Spritzling abbrechen, vorsichtig abschneiden oder abzwicken, Teil vor Kleben zusammenhalten, auf genauen Sitz achten. Nicht zuviel Klebstoff verwenden. Kleine Teile hält man mit Pinzette fest.
★ Abziehbilder vorsichtig von der Unterlage im Wasser abschieben, auf richtigen Sitz achten und gut trocknen lassen.
Zeichen für Bemalung

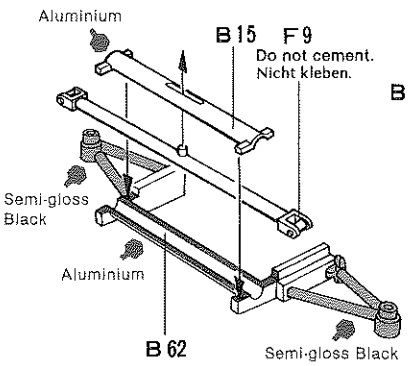
: Parts to be cemented
: hier ankleben

≪Installation of Vinyl Tubing≫
≪Einbau Vinylschlauch≫
If vinyl tubing is too tight to fit, use a toothpick to open it a little.
Wenn Vinylschlauch zu klein, mit Zahnstocher etwas dehnen.

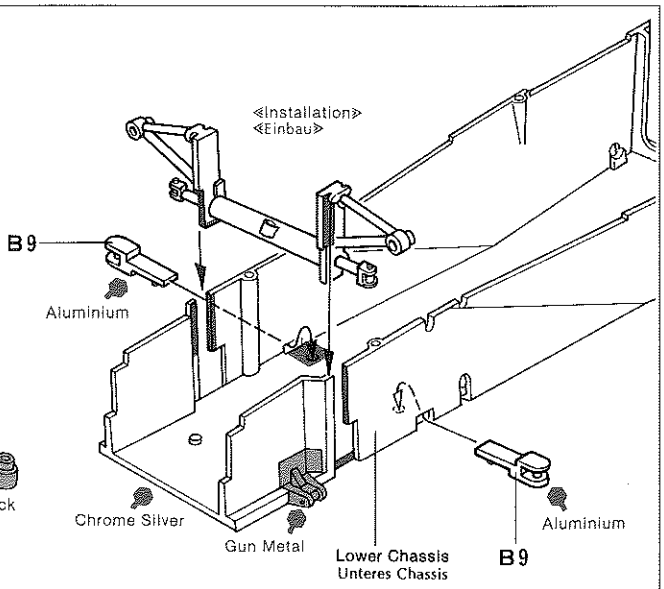


1 Steering Gear Box
Lenkgetriebe

≪Assembly≫
≪Montage≫

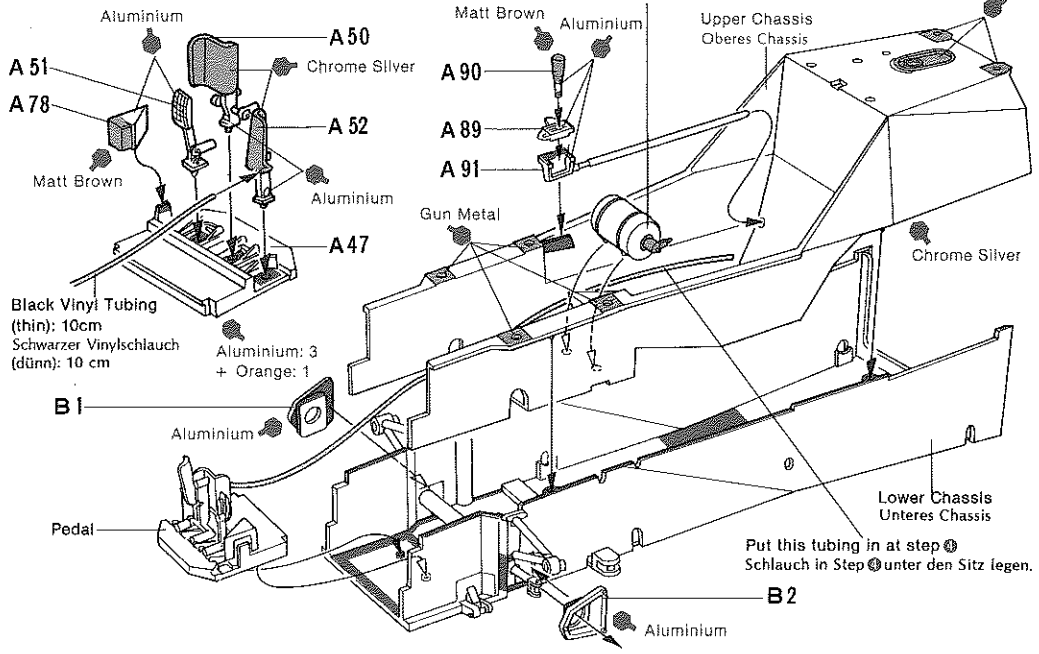


≪Installation≫
≪Einbau≫



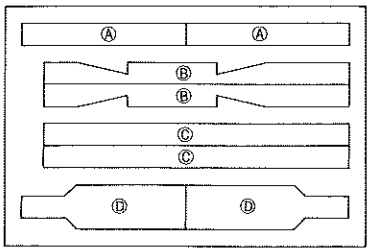
2 Pedal

≪Pedal Assembly≫
≪Pedalbau≫

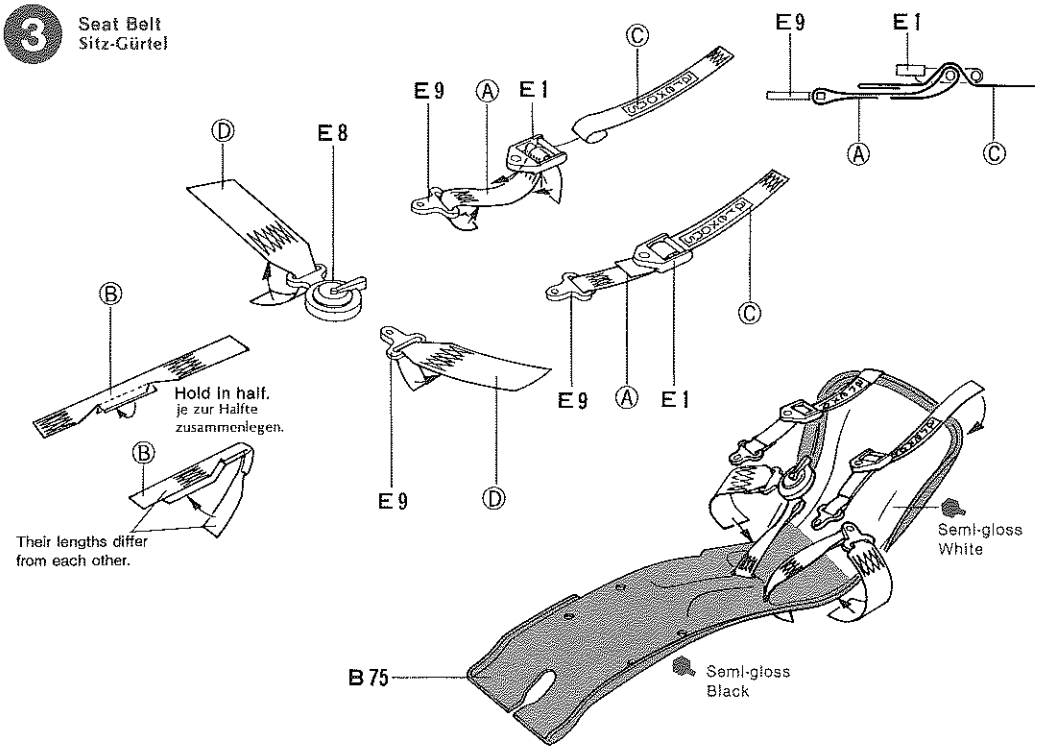


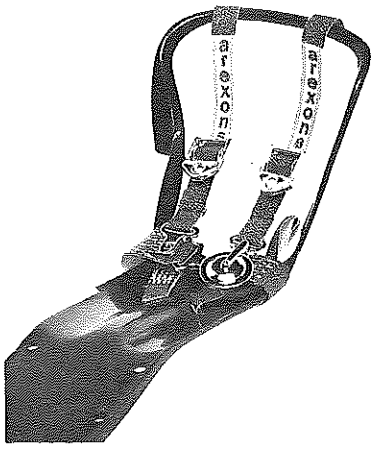
3 ≪Seat Belt≫ ≪Sitz Gürtel≫

Seat Belts are made from adhesive tape and are self sticking after assembly. Pattern is shown below.
Fuer Gurte-Klebeband benutzen.



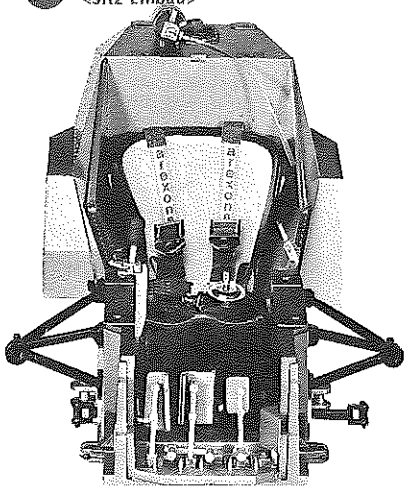
3 Seat Belt
Sitz-Gürtel





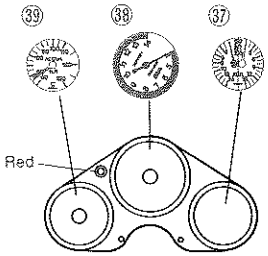


4 ≪Affixing Seat to Chassis≫ ≪Sitz Einbau≫

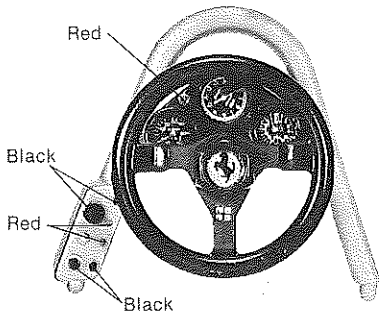


5 ≪Inner Parts≫ ≪Innenteile≫

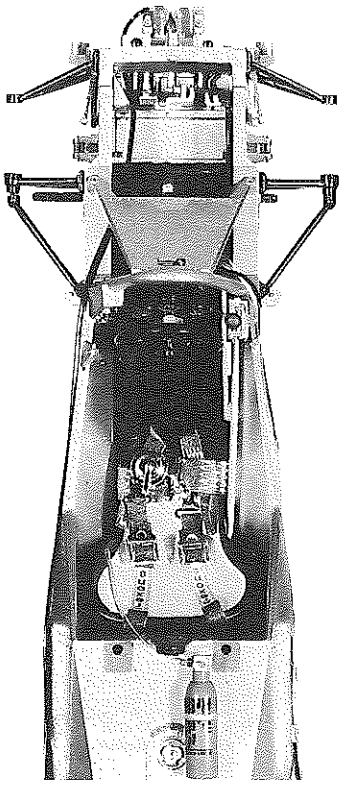
≪Decals of Meters≫
≪Abziehbilder der Tacho's≫



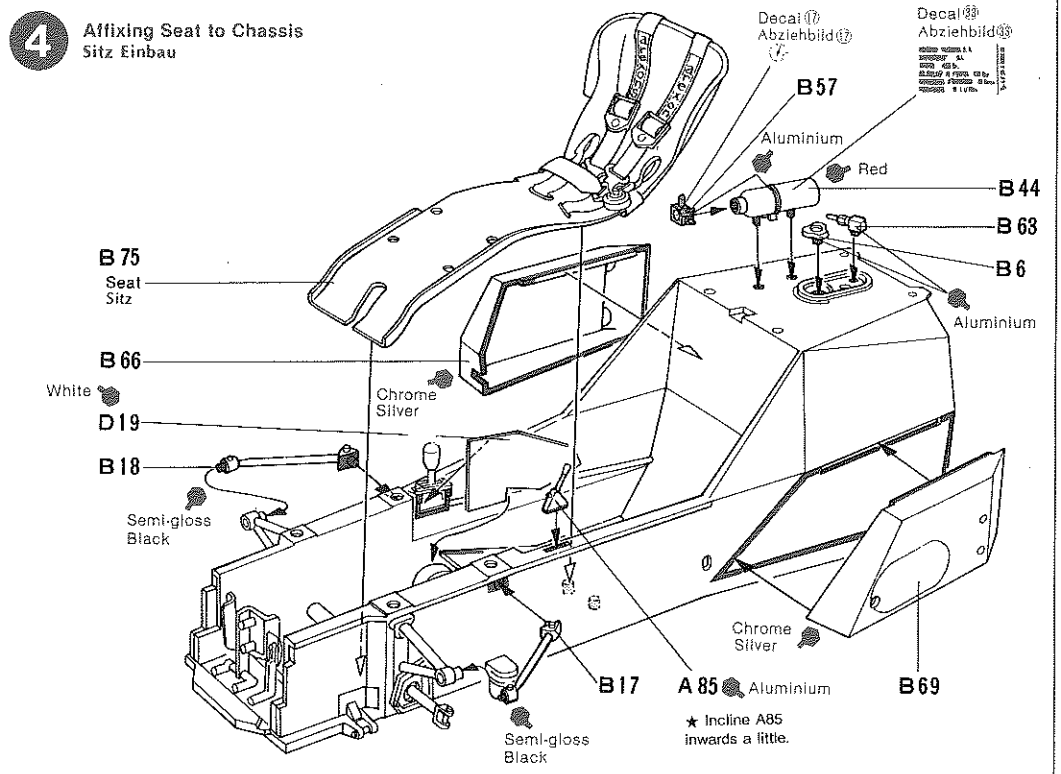
≪Switch Panel≫
≪Schalter-Brett≫



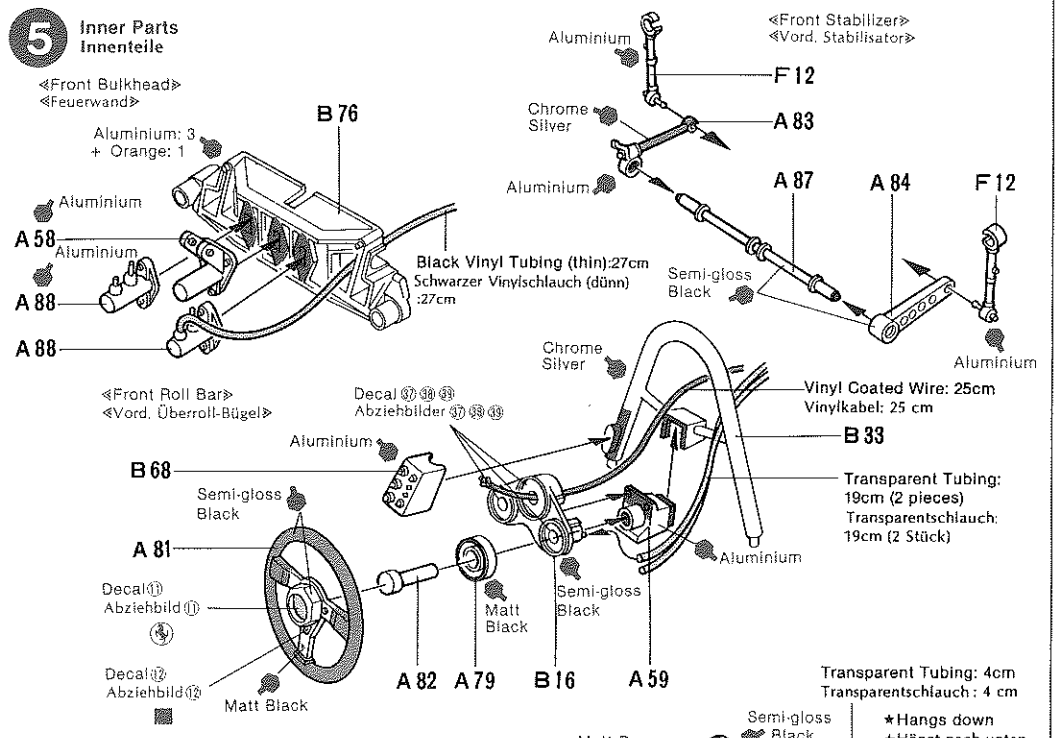
6 ≪Cockpit≫ ≪Fahrersitz≫



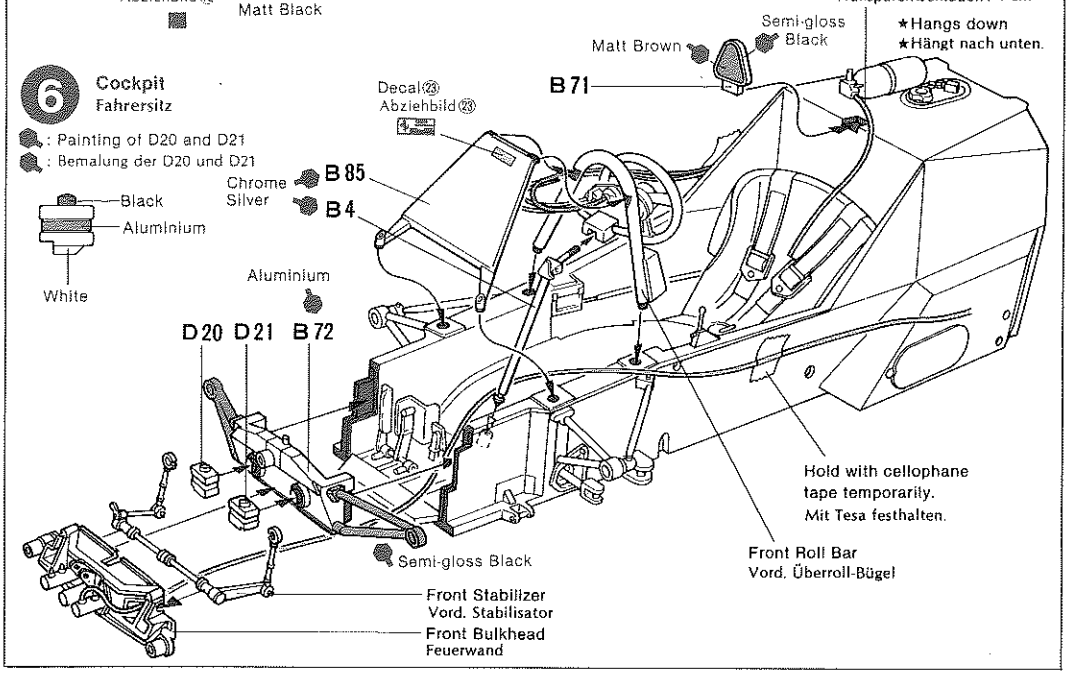
4 Affixing Seat to Chassis
Sitz Einbau



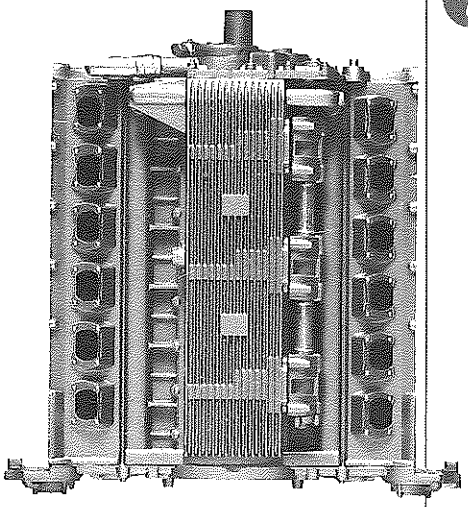
5 Inner Parts
Innenteile



6 Cockpit
Fahrersitz



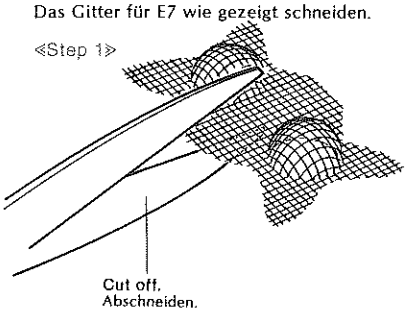
7 «Engine» «Motor»



8 «Fuel Injection Plate» «Einspritz-Anlage»

Cut the mesh to fit each E7 as shown below.
Das Gitter für E7 wie gezeigt schneiden.

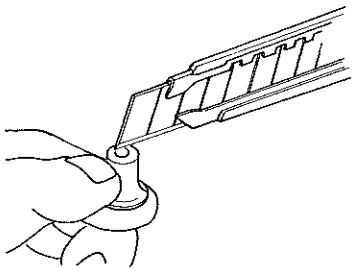
«Step 1»



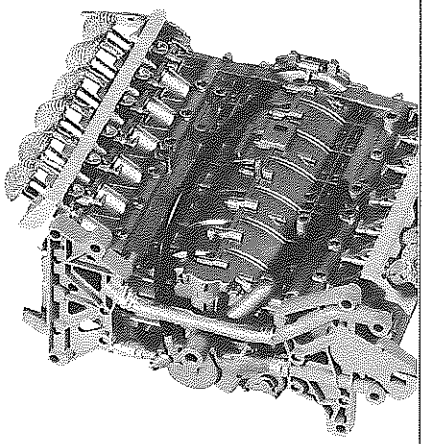
«Step 2»



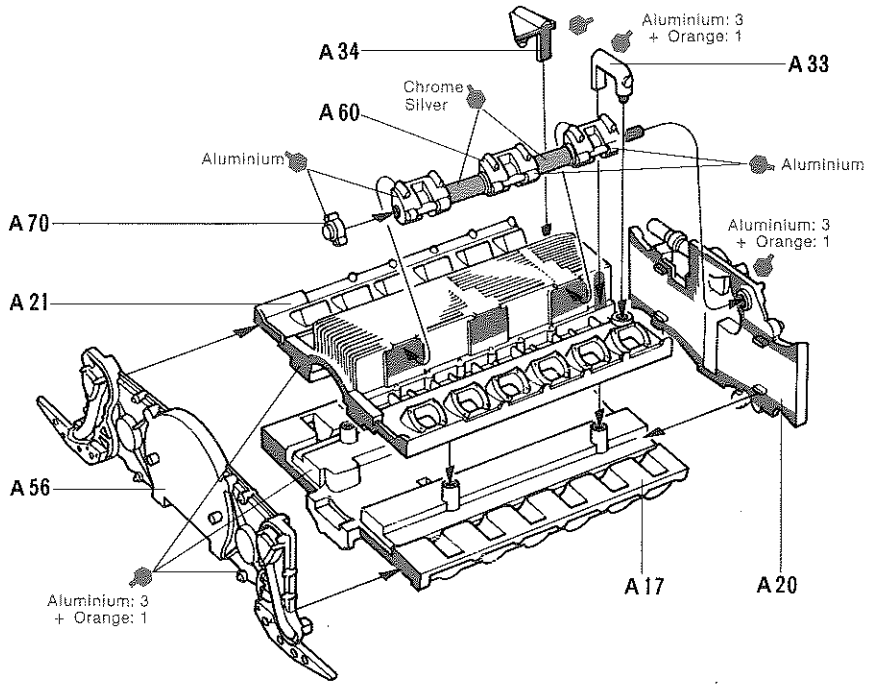
★Before cementing parts, remove plating with a knife, etc. from the surfaces to which adhesive is to be applied.
Chromschicht an Klebestellen entfernen.



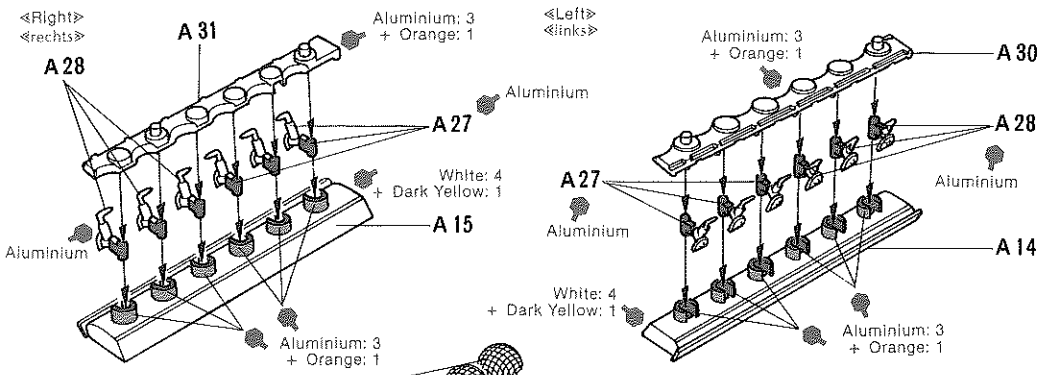
9 «Attaching Fuel Injection Plate» «Einspritz-Anlage Einbau»

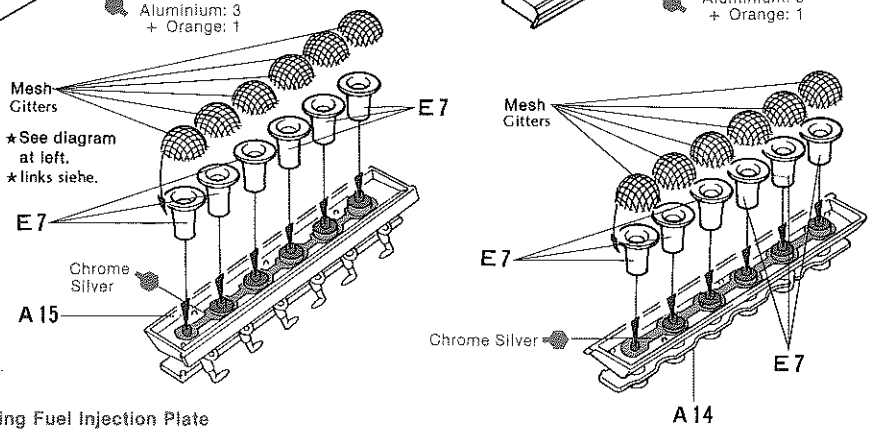


7 Engine Motor

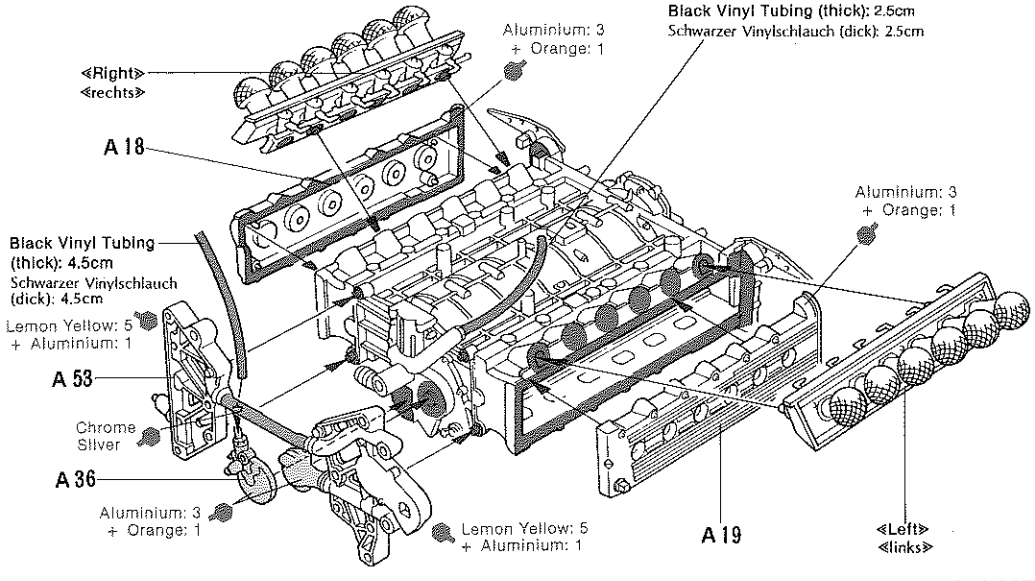


8 Fuel Injection Plate Einspritz-Anlage



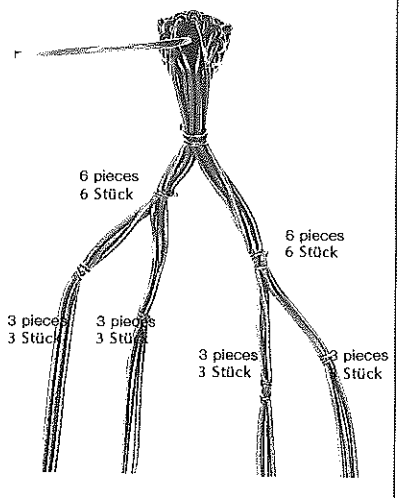


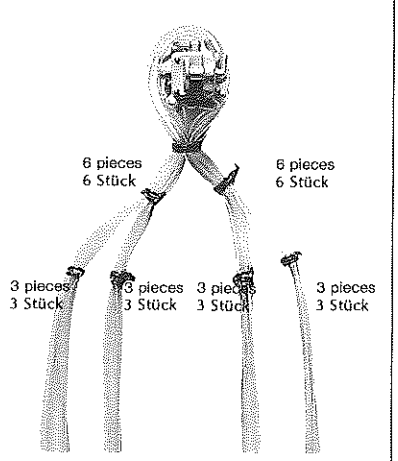
9 Attaching Fuel Injection Plate Einspritz-Anlage Einbau



⑩ ≪Ignition System≫ ≪Einspritzanlage≫

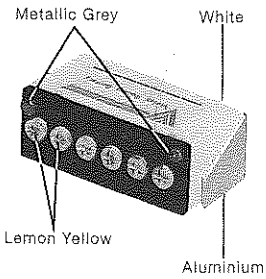
Tie each bunch of wiring or tubing together as shown below.
Die Kabel wie gezeigt zusammenbinden.



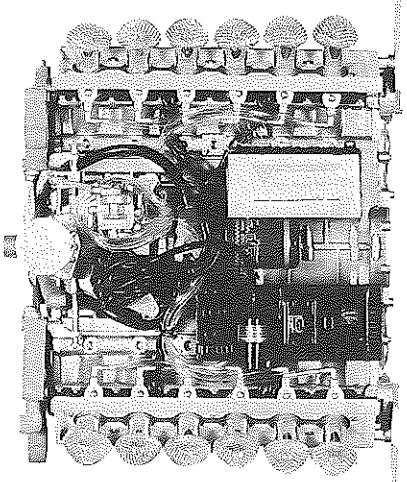


⑫ ≪Attaching Ignition Parts≫ ≪Einbau Zündanlage≫

: Painting of Battery
: Bemalung der Batterie

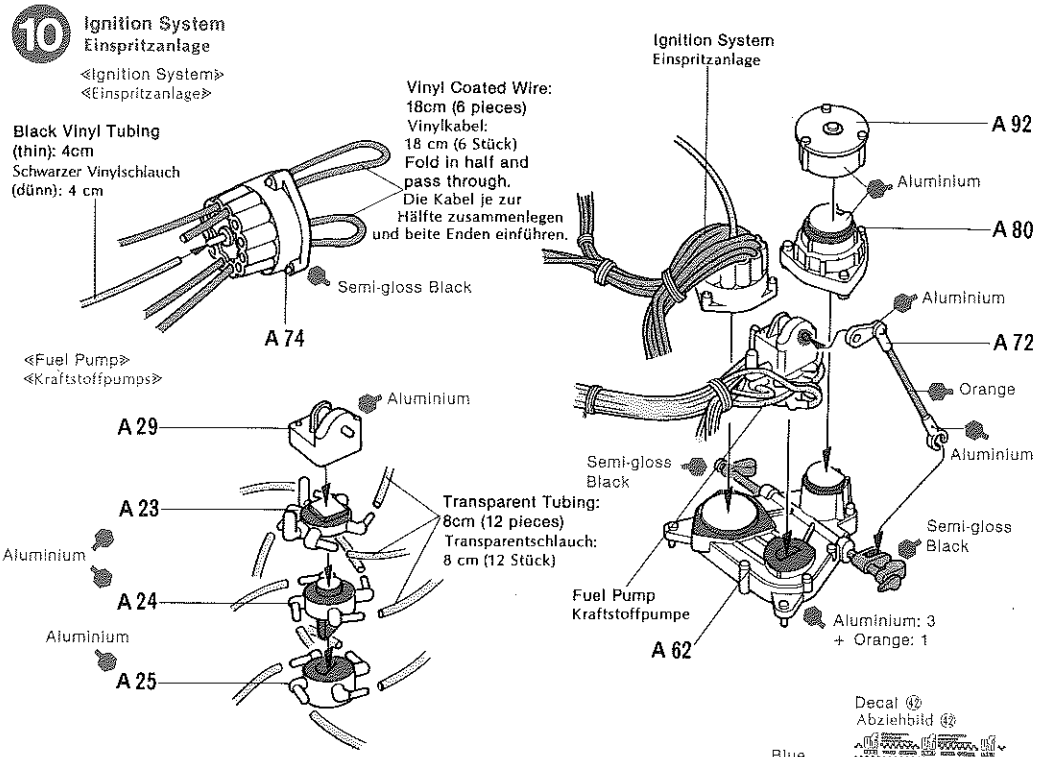


≪Wiring≫
≪Verkabelung der Zündanlage≫



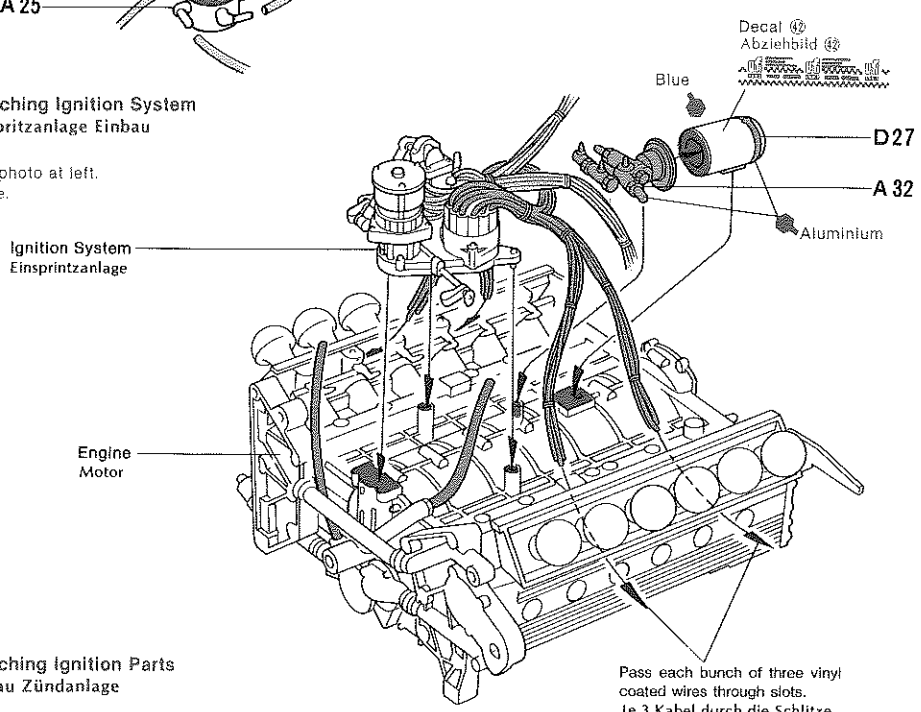
⑩ Ignition System Einspritzanlage

≪Ignition System≫
≪Einspritzanlage≫

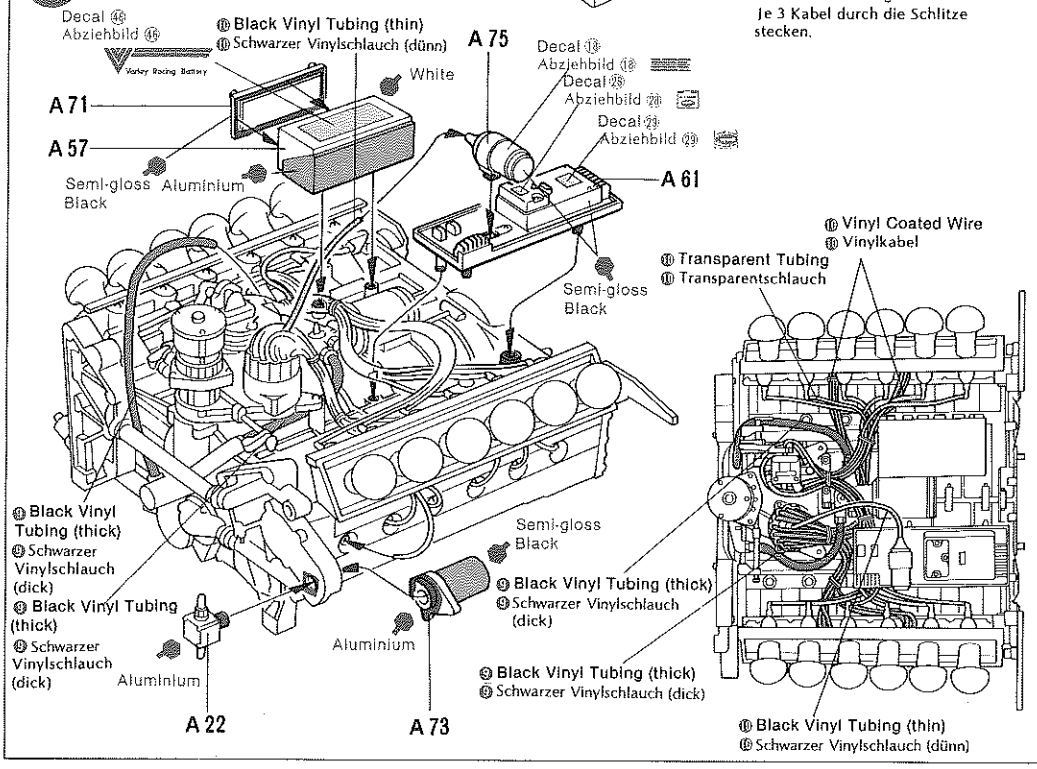


⑪ Attaching Ignition System Einspritzanlage Einbau

★Refer to photo at left.
★links siehe.

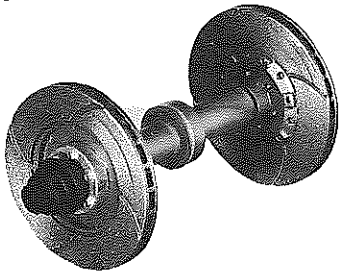


⑫ Attaching Ignition Parts Einbau Zündanlage

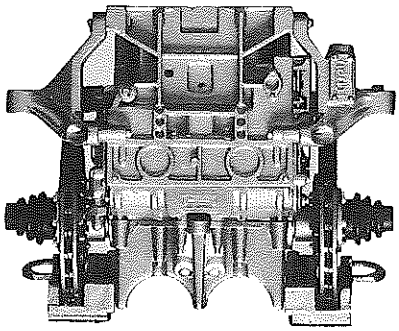


Pass each bunch of three vinyl coated wires through slots.
Je 3 Kabel durch die Schlitze stecken.

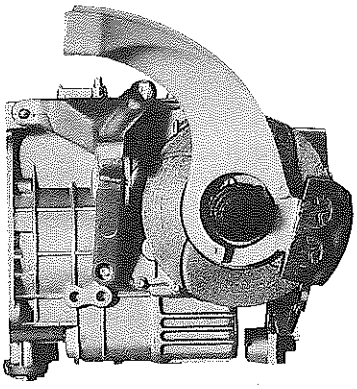
13 ≪Rear Brake Disc≫
≪Scheibenbremse hinten≫

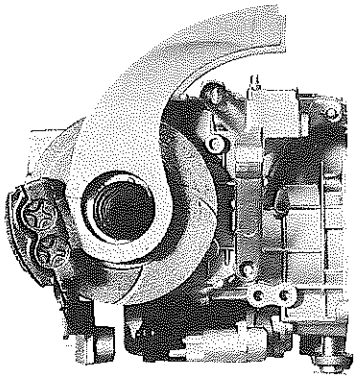


14 ≪Gear Box≫
≪Getriebe-Gehäuse≫

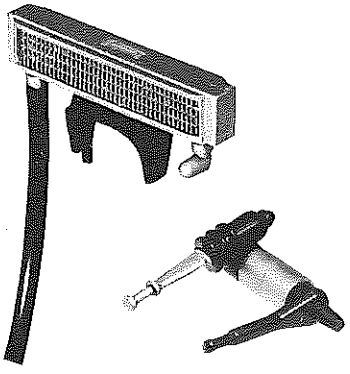


15 ≪Brake Air Duct≫
≪Bremsluftführung≫

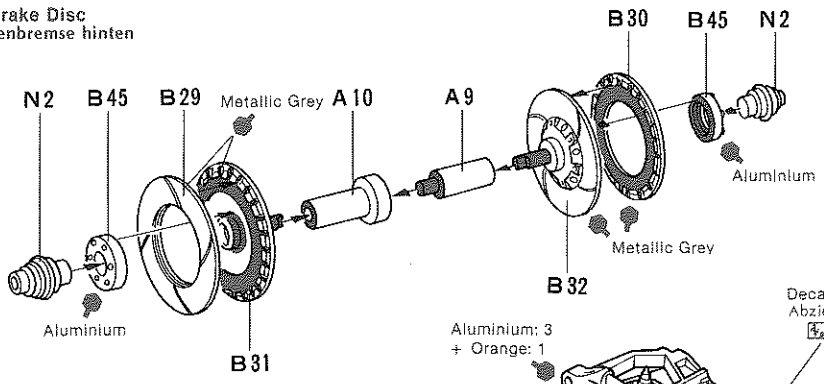




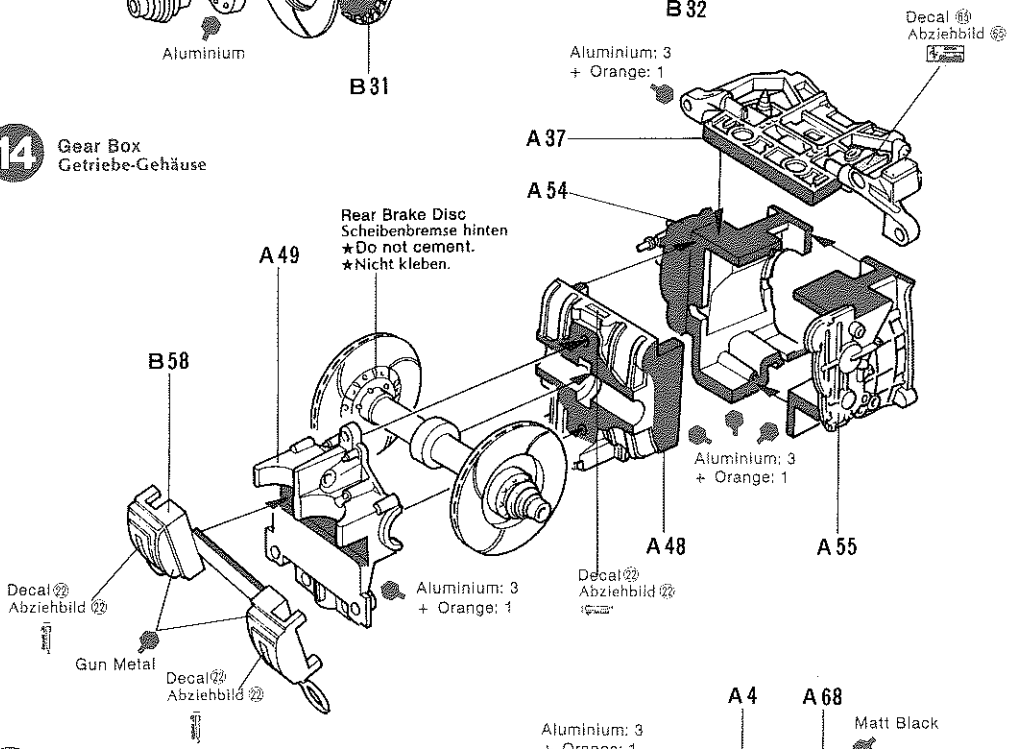
16 ≪Oil Cooler of Gear Box≫
≪Getriebe Öl Kühler≫



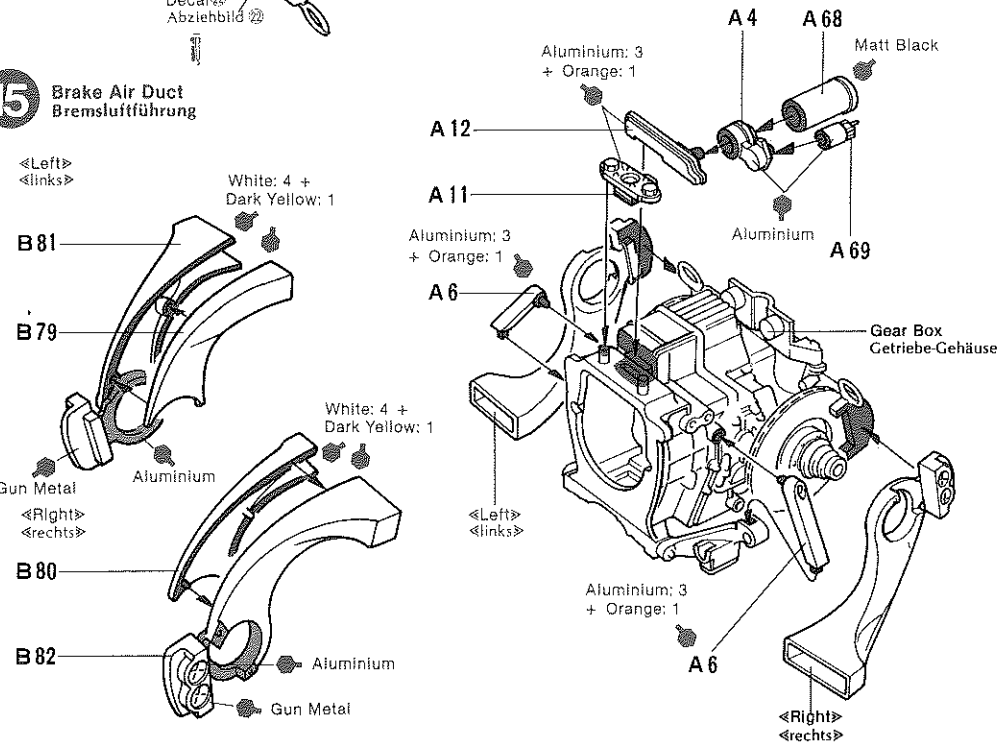
13 Rear Brake Disc
Scheibenbremse hinten



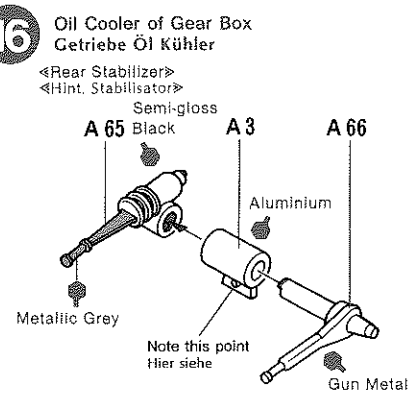
14 Gear Box
Getriebe-Gehäuse



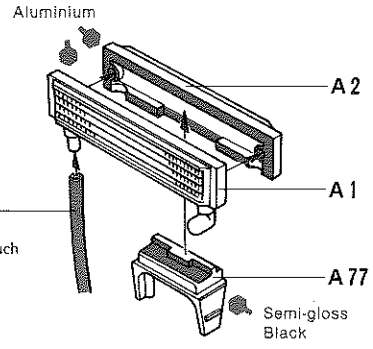
15 Brake Air Duct
Bremsluftführung



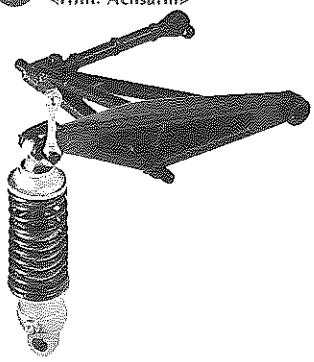
16 Oil Cooler of Gear Box
Getriebe Öl Kühler

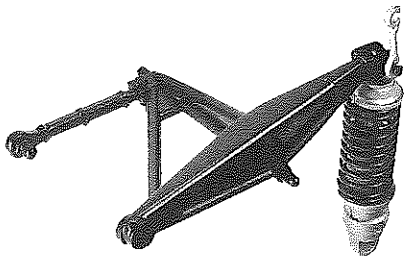


≪Oil Cooler of Gear Box≫
≪Getriebe Öl Kühler≫

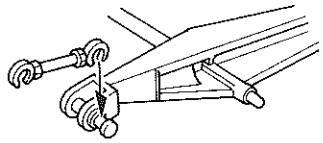


18 ≪Rear Upper Arm≫ ≪Hint. Achsarm≫



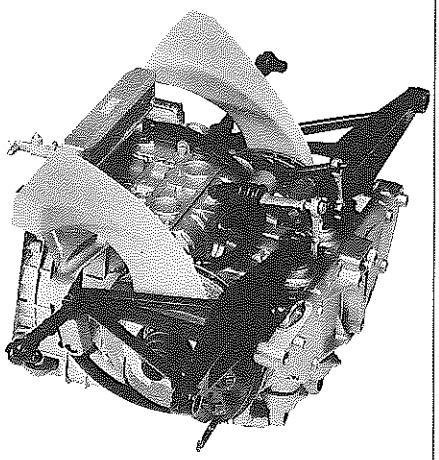


≪Attaching Part F5≫
≪F5 Einbau≫

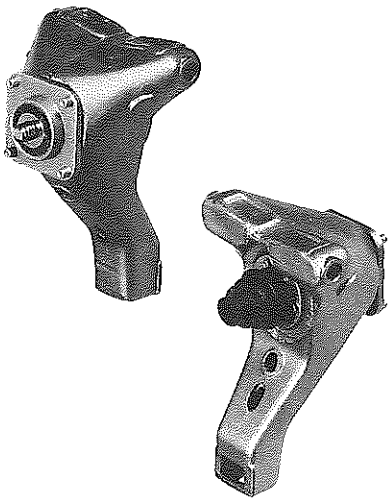


★Force a link part to attach.
★Vorsichtig eindrücken.

19 ≪Attaching Rear Upper Arms≫ ≪Einbau des Hint. Achsarm≫

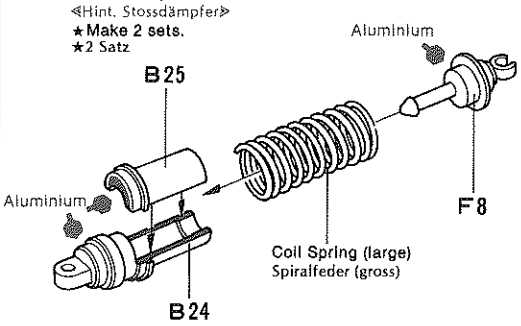


20 ≪Rear Upright≫ ≪Hint. Achs-Lager≫

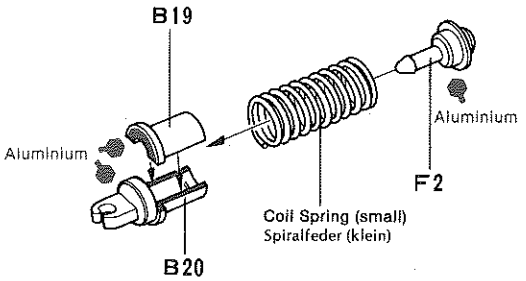


17 Damper
Stossdämpfer

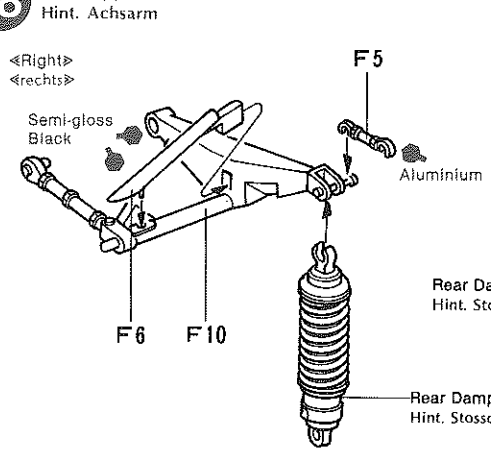
≪Rear Damper≫
≪Hint. Stossdämpfer≫
★Make 2 sets.
★2 Satz

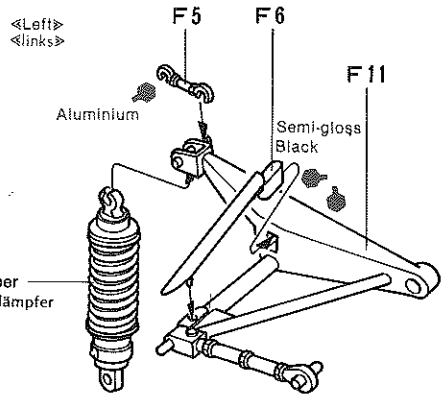


≪Front Damper≫
≪Vord. Stossdämpfer≫
★Make 2 sets.
★2 Satz

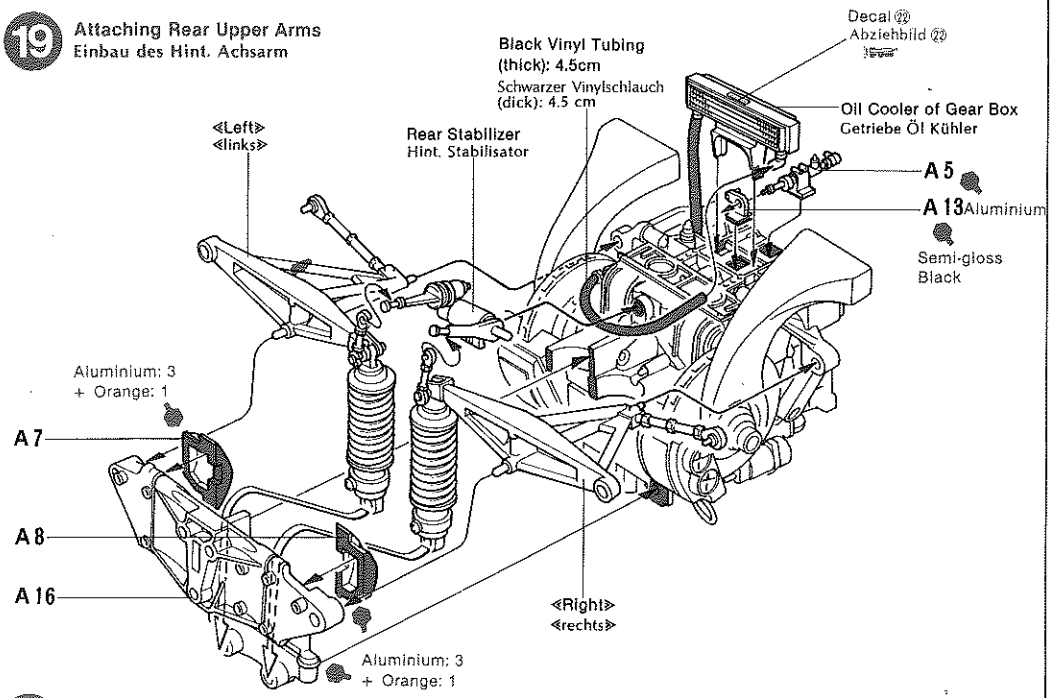


18 Rear Upper Arm
Hint. Achsarm

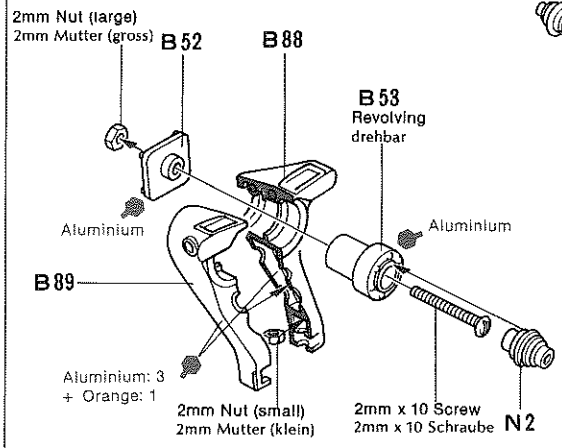


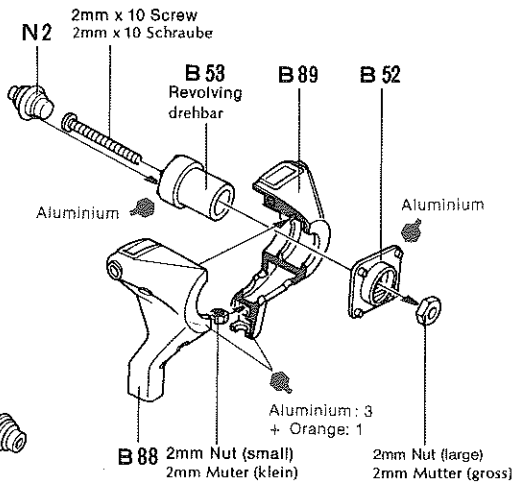


19 Attaching Rear Upper Arms
Einbau des Hint. Achsarm



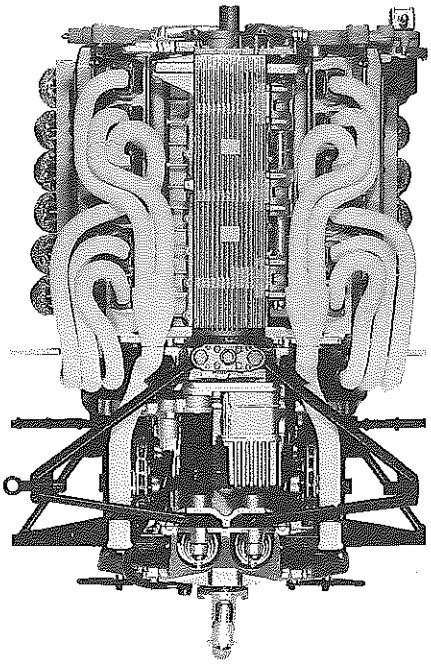
20 Rear Upright
Hint. Achs-Lager



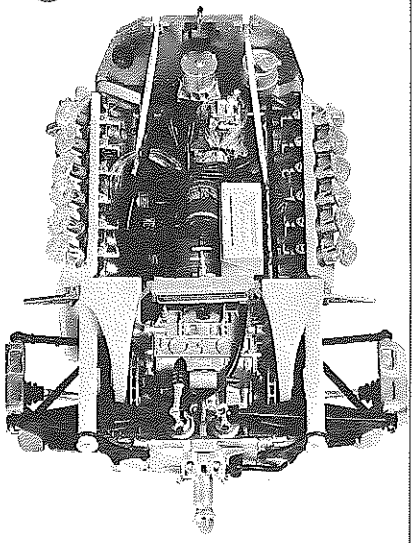


21 ≪Exhaust Pipe≫
≪Auspuff≫

The exhaust pipes are similar to one another. Be careful to keep track of each piece when removing from sprue.
Die Auspuffrohre sehen alle fast gleich aus. Auf die Nummern achten.

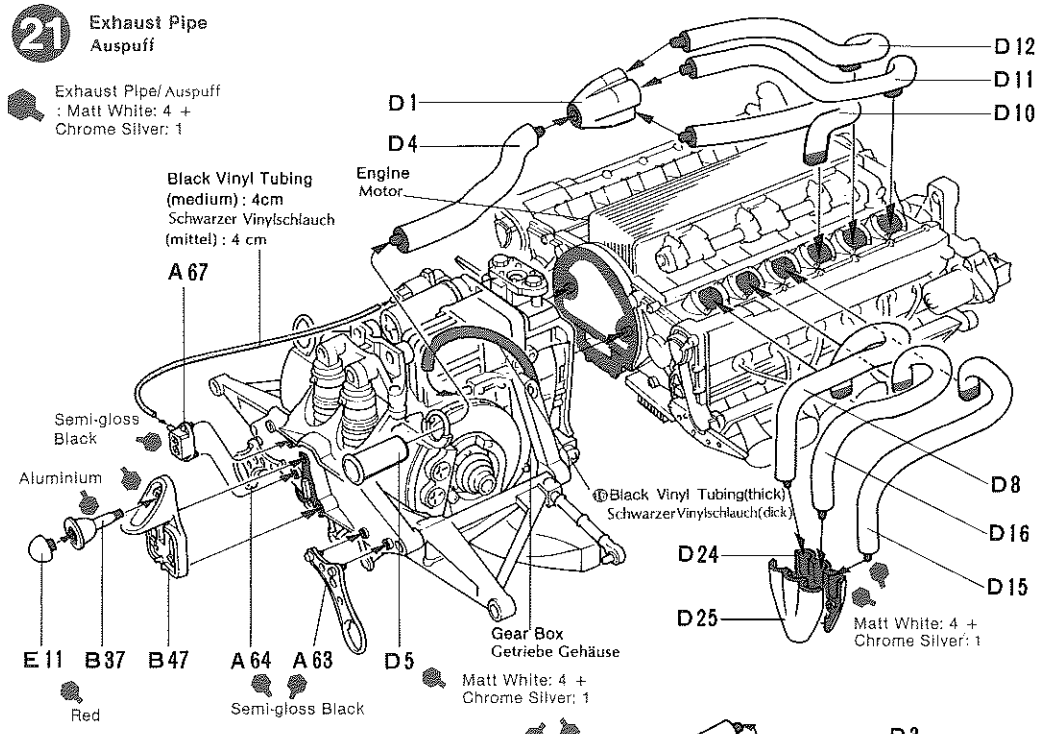


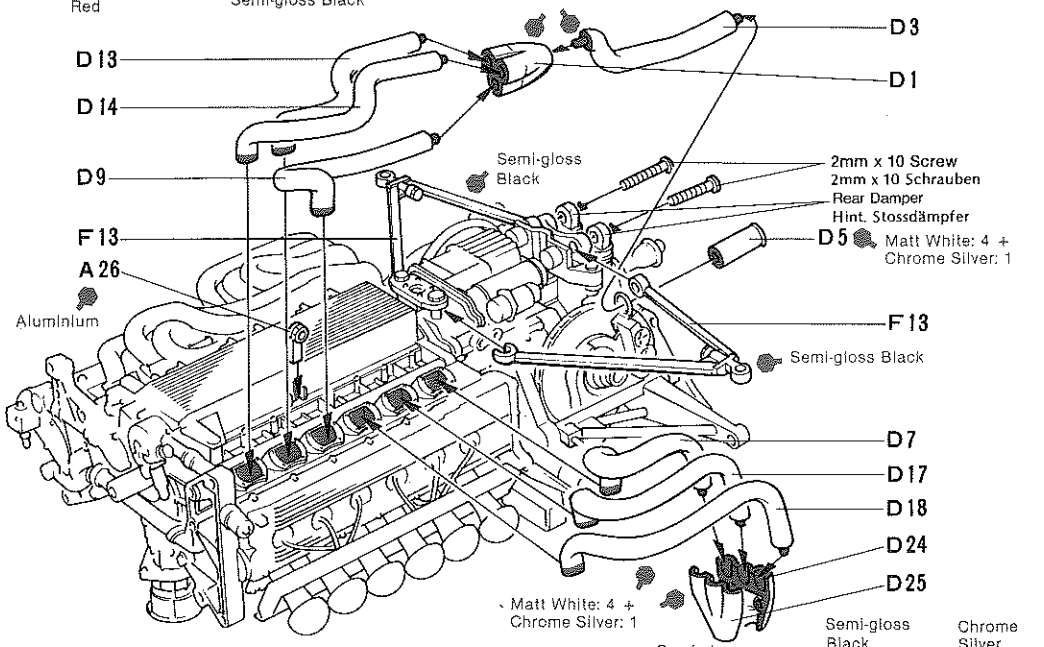
22 ≪Rear Bulkhead≫
≪Feuerwand≫



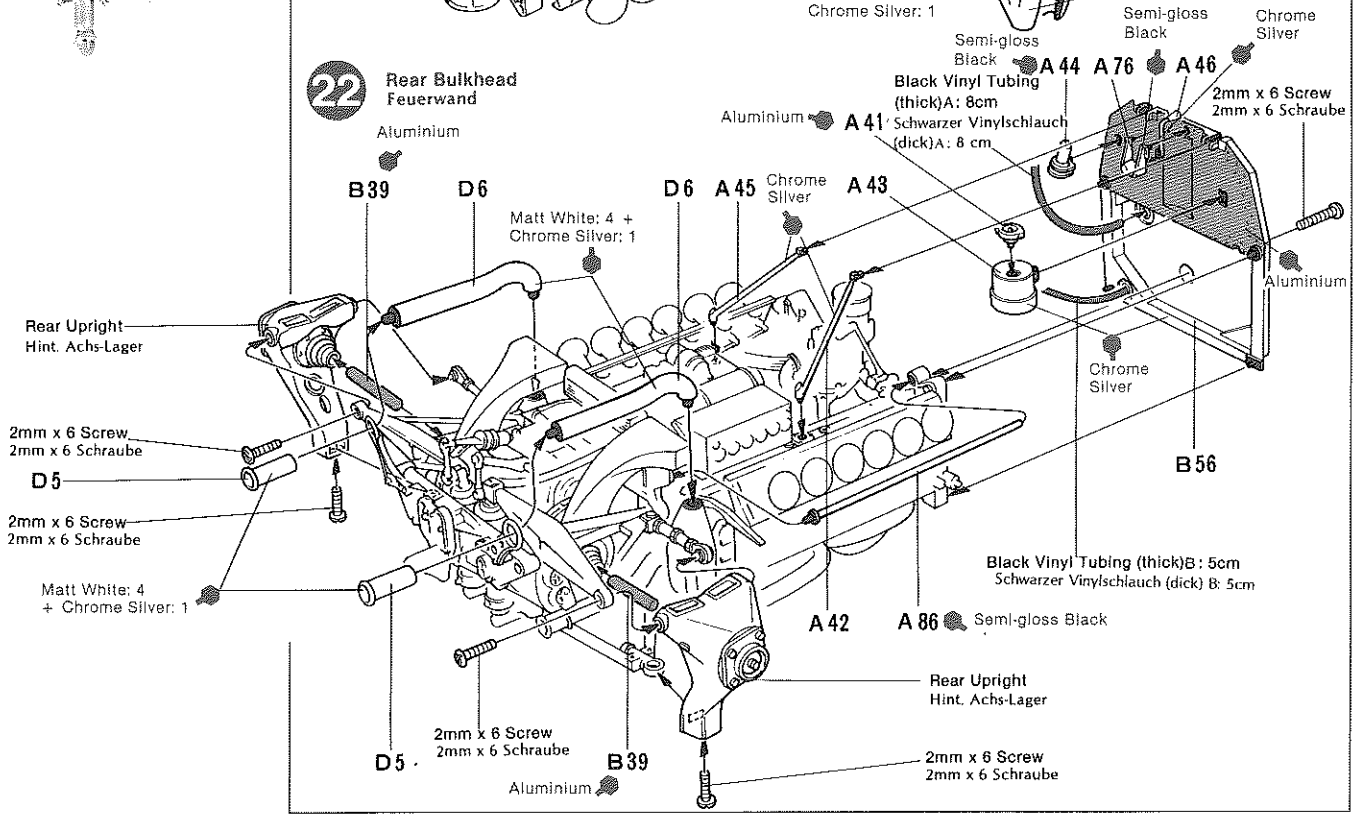
21 Exhaust Pipe
Auspuff

Exhaust Pipe/ Auspuff
: Matt White: 4 +
Chrome Silver: 1

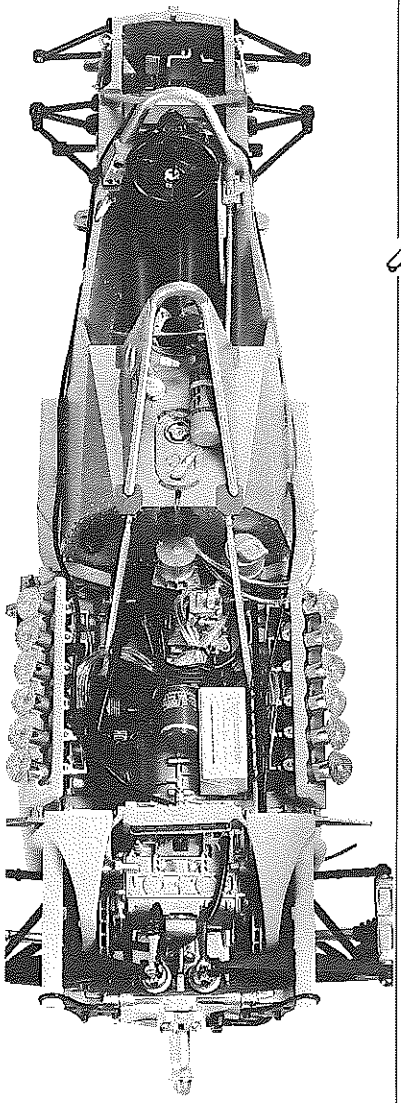




22 Rear Bulkhead
Feuerwand

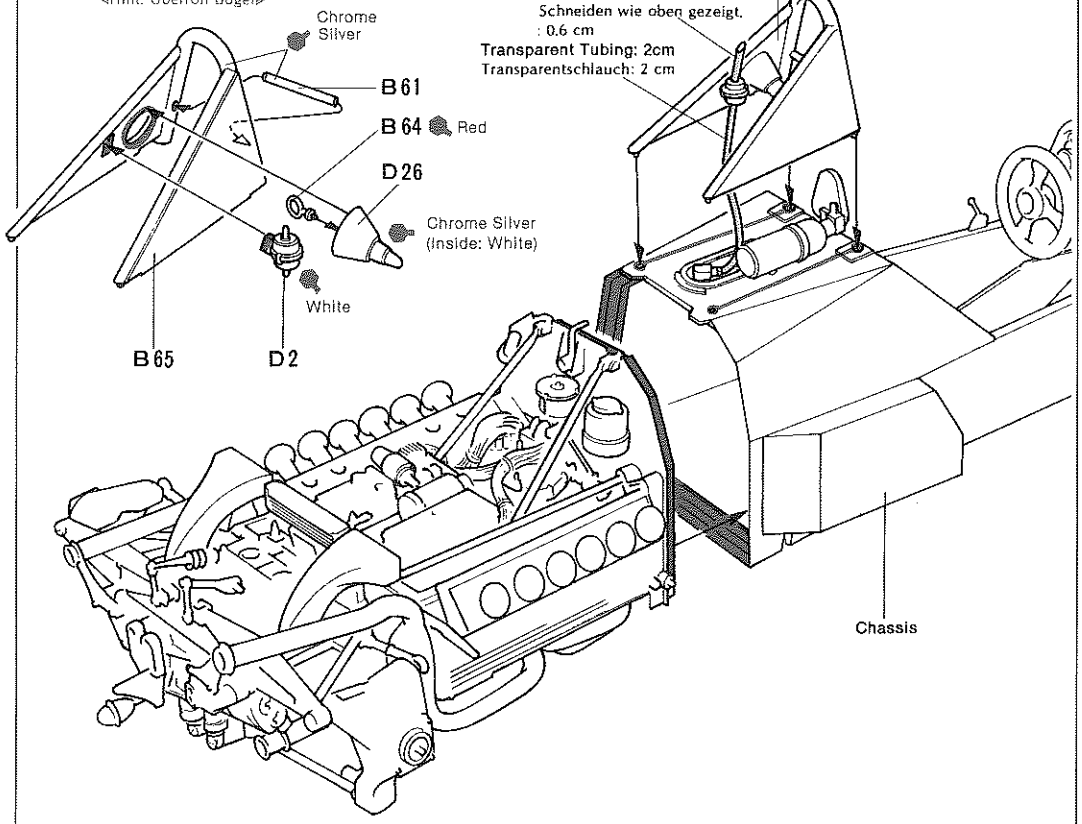


23 ≪Attaching Engine≫ ≪Motor Einbau≫

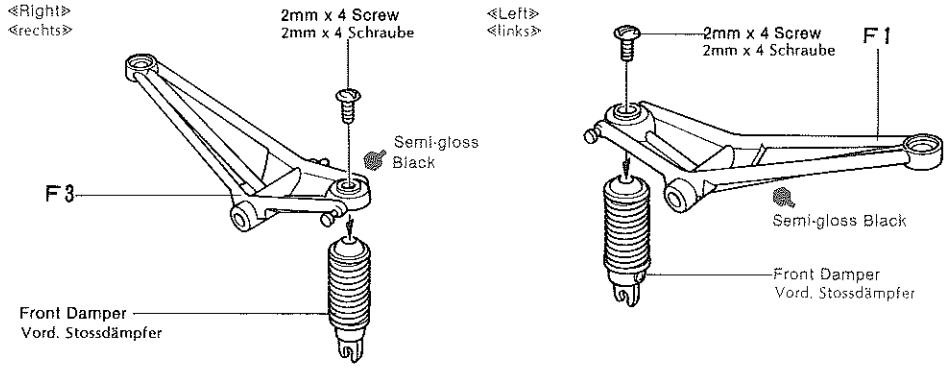


23 Attaching Engine
Motor Einbau

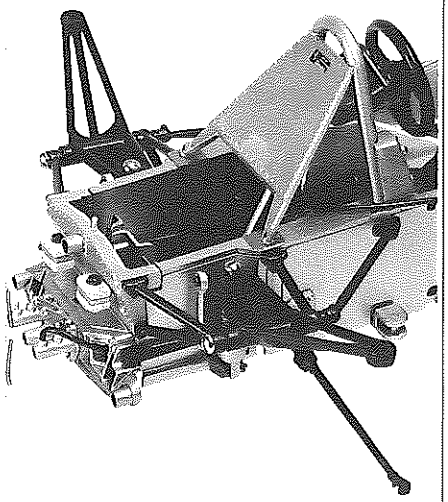
≪Rear Roll Bar≫
≪Hint. Überroll Bügel≫



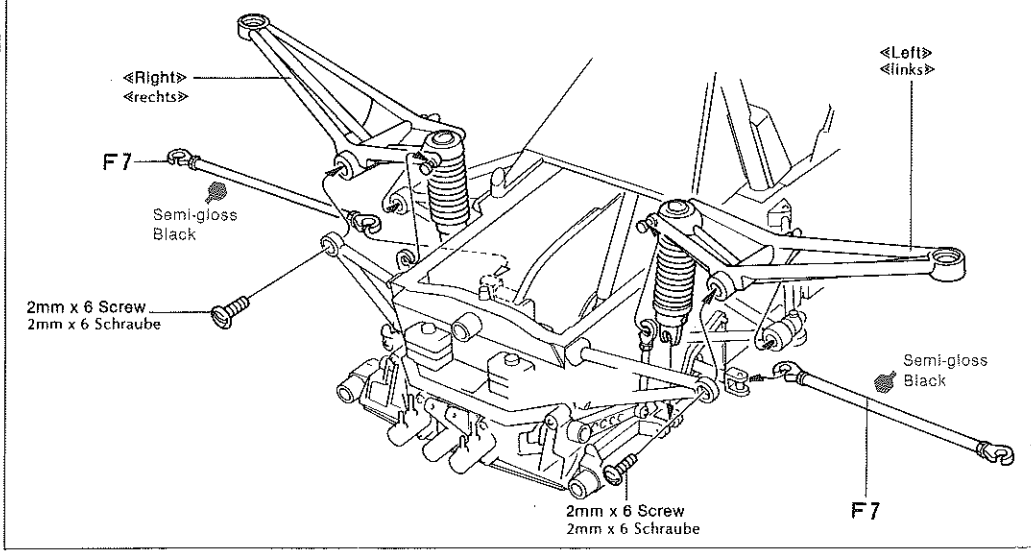
24 Front Upper Arm
Vord. Achsarm



25 ≪Attaching Front Upper Arms≫ ≪Vord. Achsarm Einbau≫

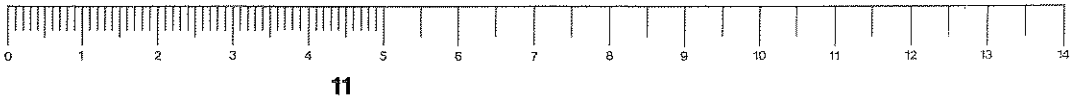


25 Attaching Front Upper Arms
Vord. Achsarm Einbau

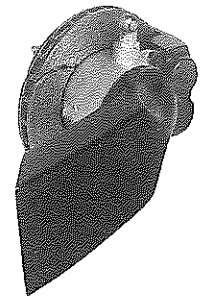


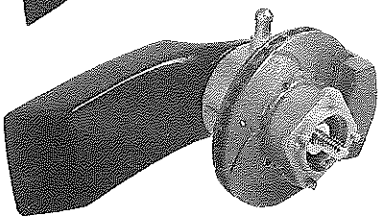
TAMIYA COLOR CATALOGUE
The latest in cars, boats, tanks and ships. Motorized, radio controlled and museum quality models are all shown in full color in Tamiya's latest catalogue. At your nearest hobby supply house.

Tamiya Acrylic Paints
Need precise colour matching? Try the new Tamiya acrylic paints. Engineered by modelers for modelers' use. The final cover for the finest models. Insist on Tamiya for perfect results.

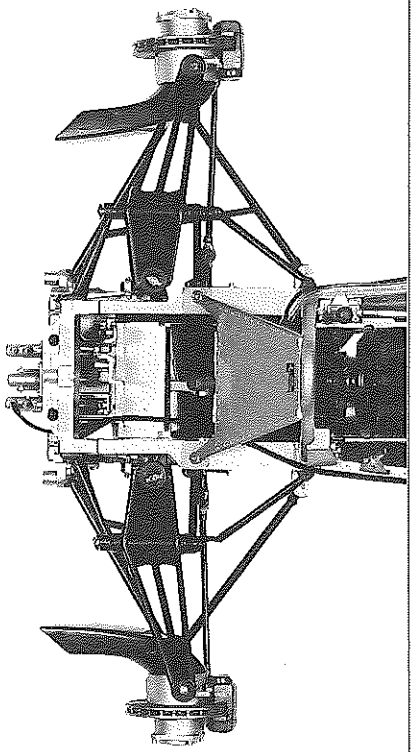


26 ≪Front Upright≫ ≪Vord. Achs-Lager≫

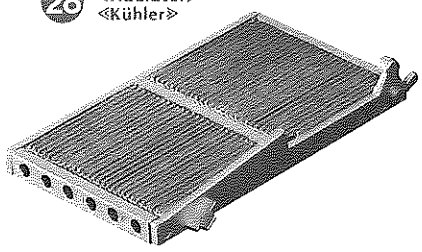


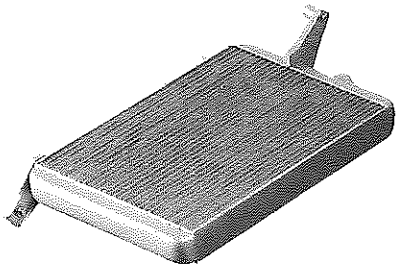


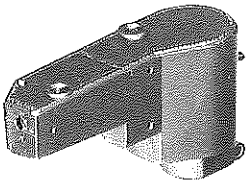
27 ≪Assembly of Front Uprights≫ ≪Einbau der Vord. Achs-Lager≫



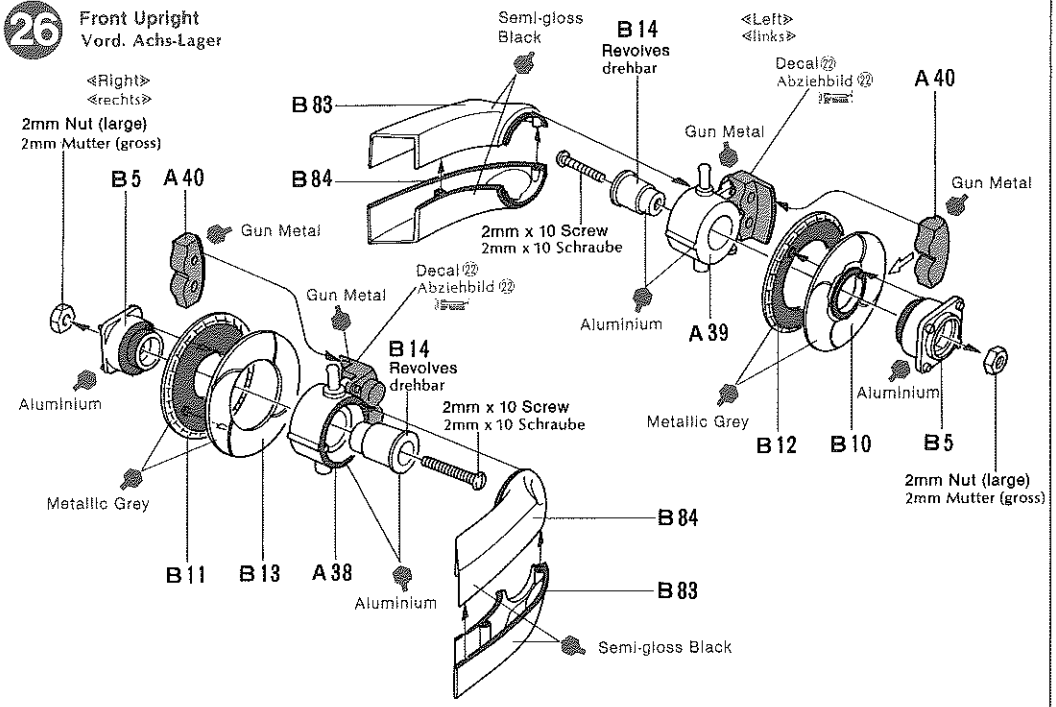
28 ≪Radiator≫ ≪Kühler≫



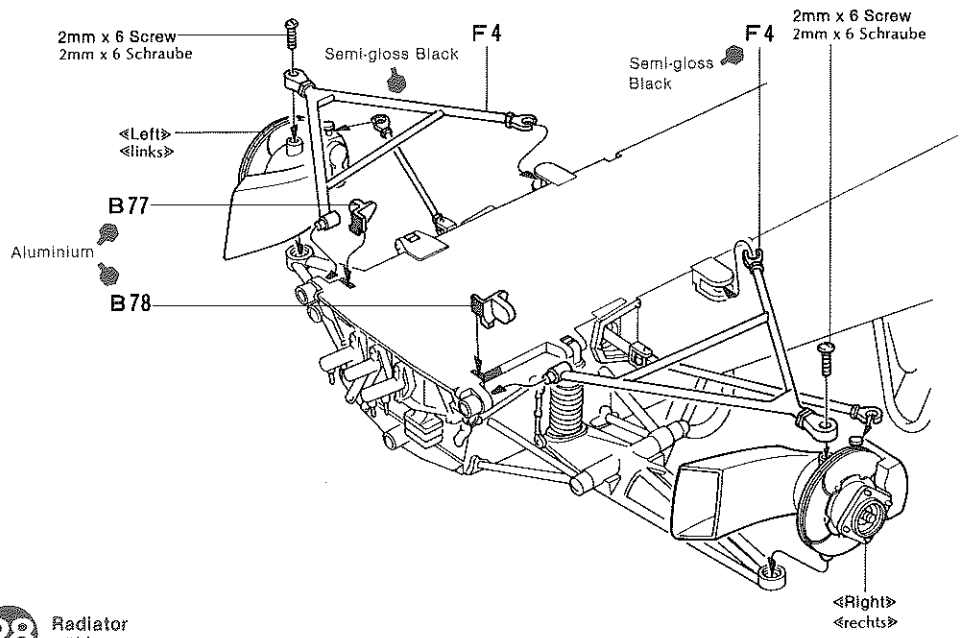




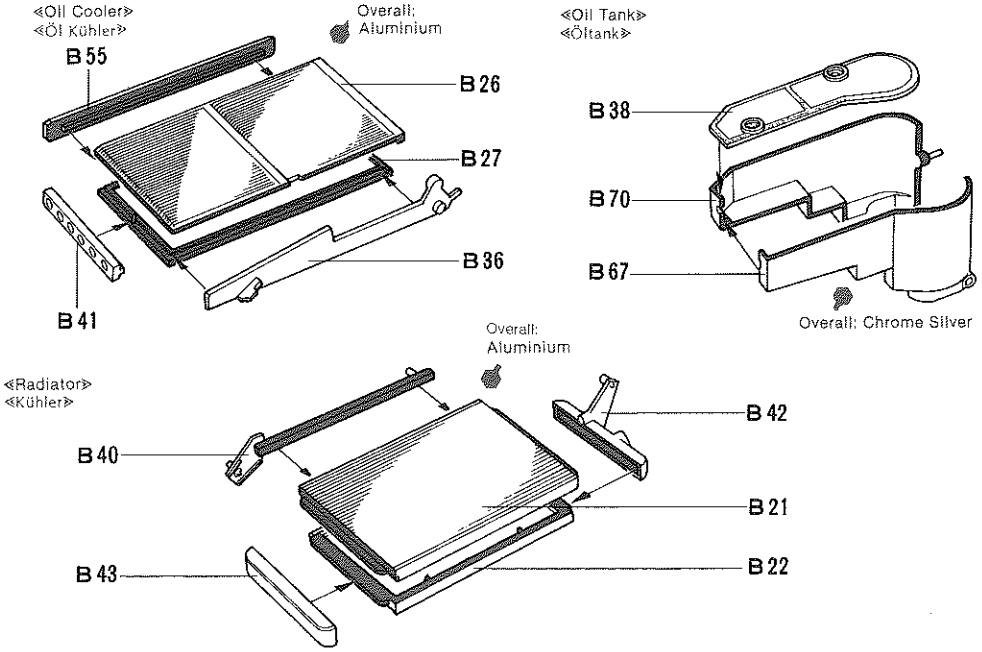
26 Front Upright / Vord. Achs-Lager



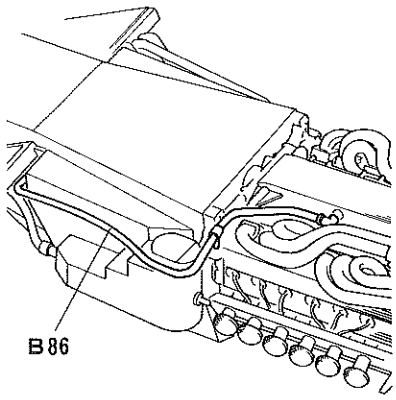
27 Assembly of Front Uprights / Einbau der Vord. Achs-Lager

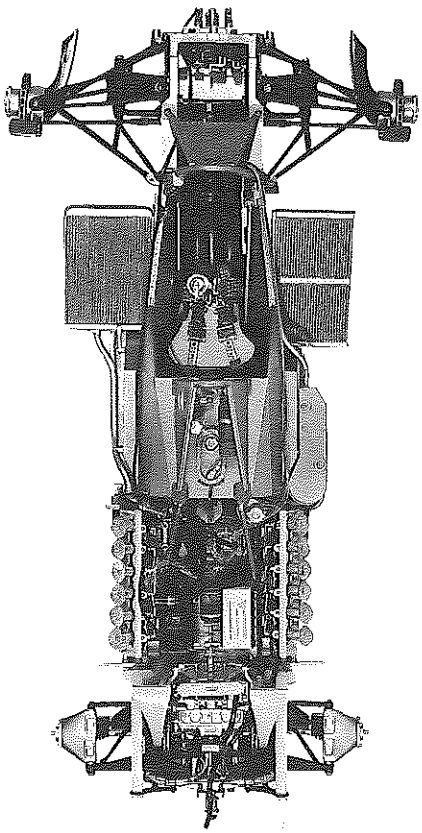


28 Radiator / Kühler

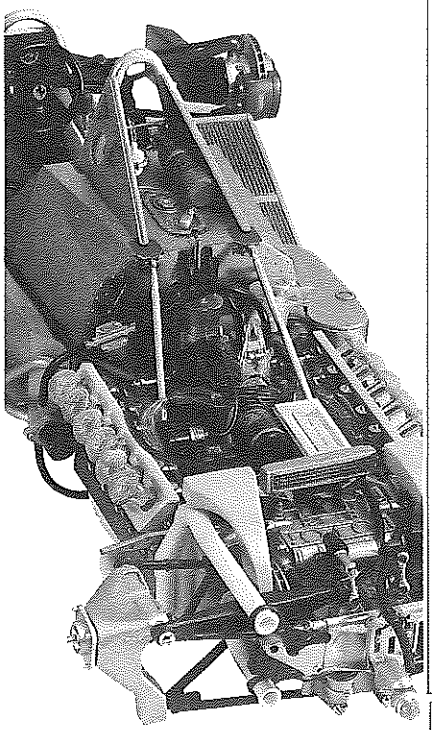


29 ≪Attachment of Oil Cooler≫
≪Öl-Kühler Einbau≫
≪B86 Placement≫
≪B86 Einbau≫

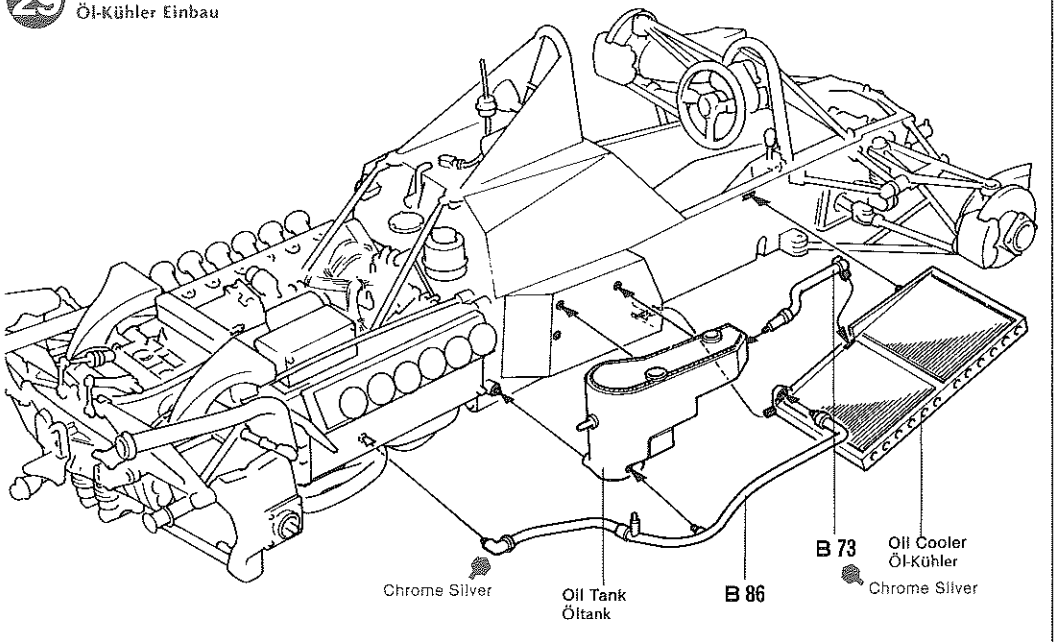




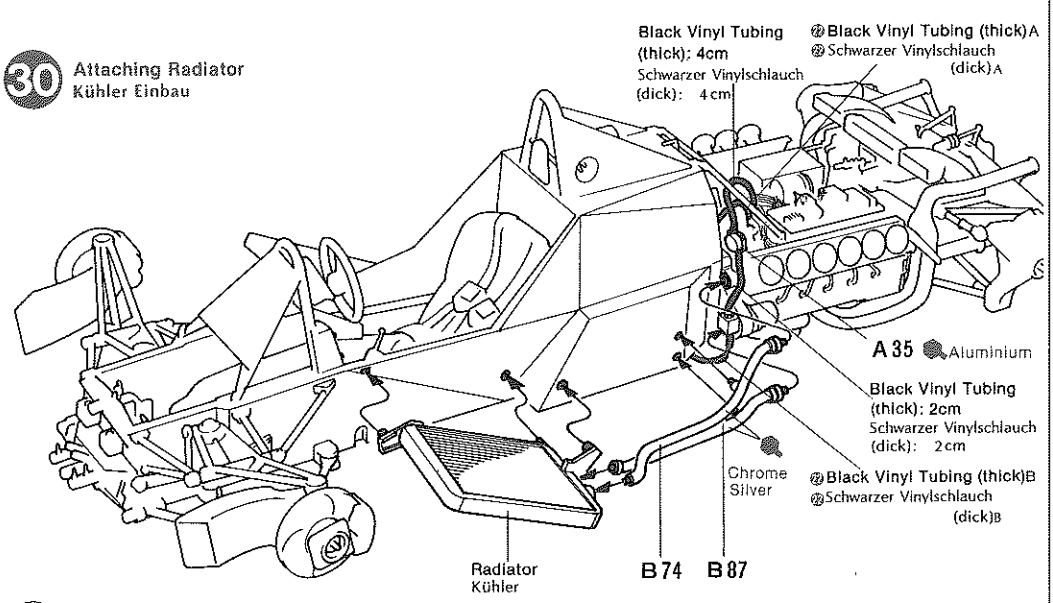
31 ≪Installation of Vinyl Tubings≫
≪Vinylschlauch Einbau≫



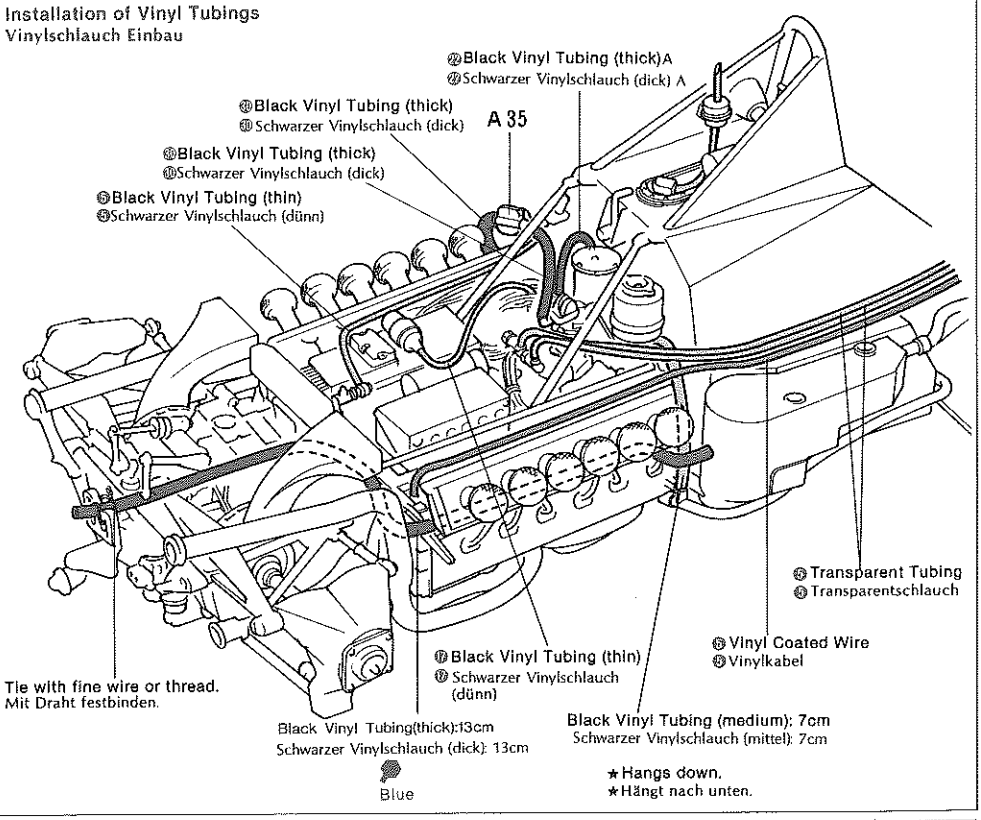
29 Attachment of Oil Cooler
Öl-Kühler Einbau

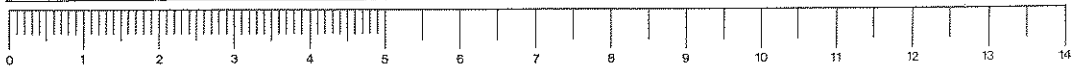


30 Attaching Radiator
Kühler Einbau



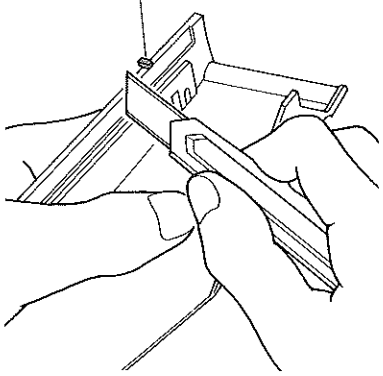
31 Installation of Vinyl Tubings
Vinylschlauch Einbau



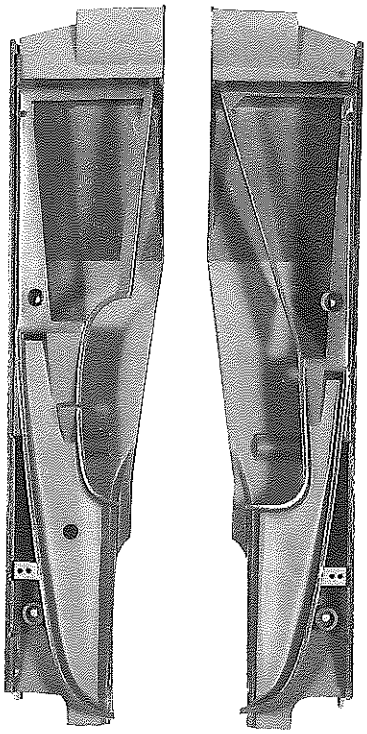


32 «Side Pontoons» «Seiten Pontoons»

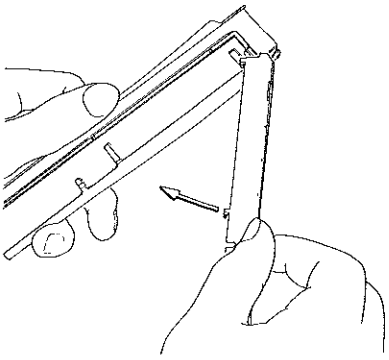
Cut off.
Abschneiden.



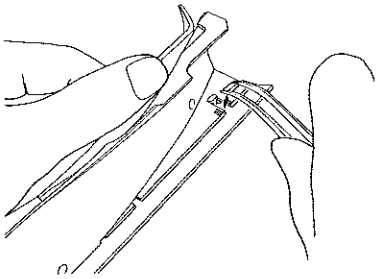
33 «Assembly of Side Skirts» «Seitenverkleidung»



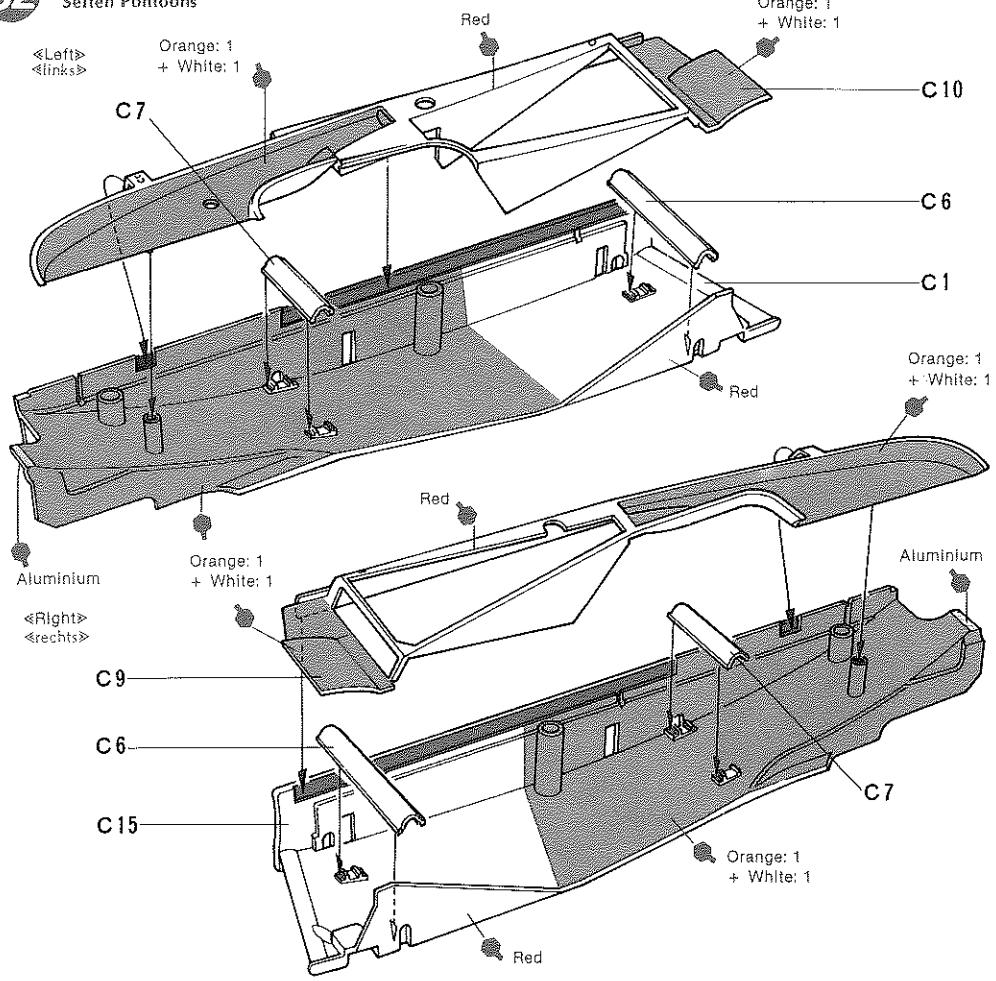
«How to Assemble Side Skirts»
«So einbauen»



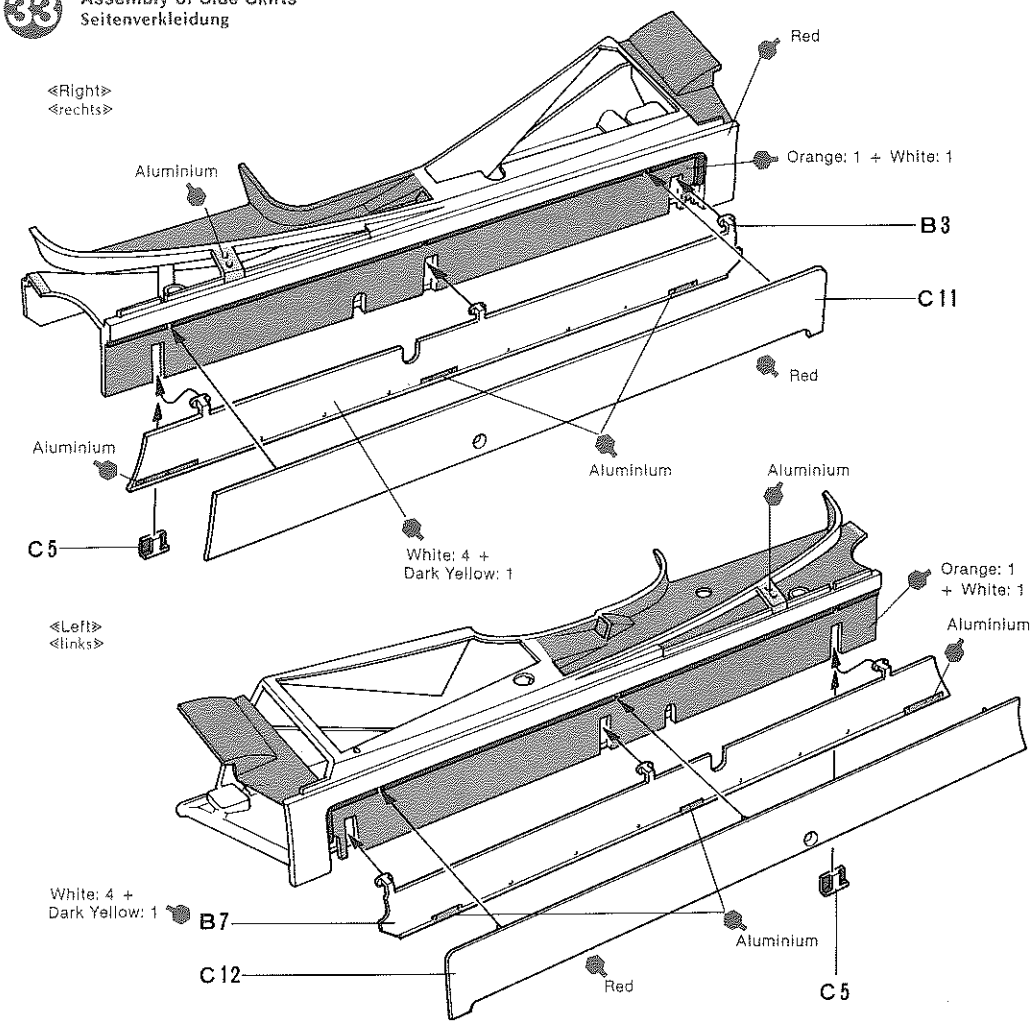
«Attaching C5»
«C5 Einbau»
Attach C5 after cementing B3 or B7.
Erst B3 oder B7 einkleben, dann C5.



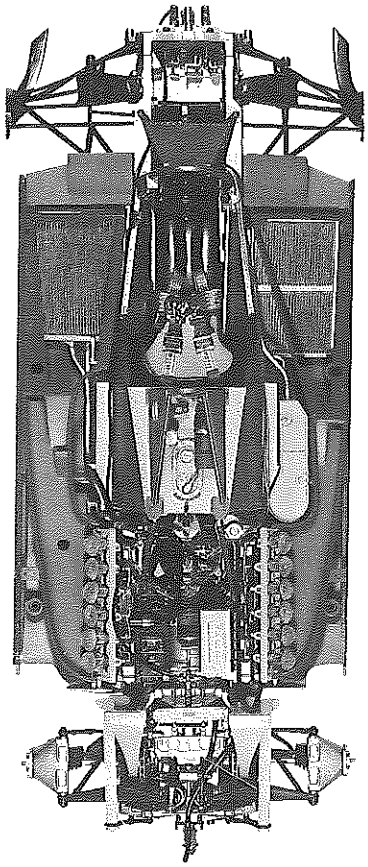
32 Side Pontoons Seiten Pontoons



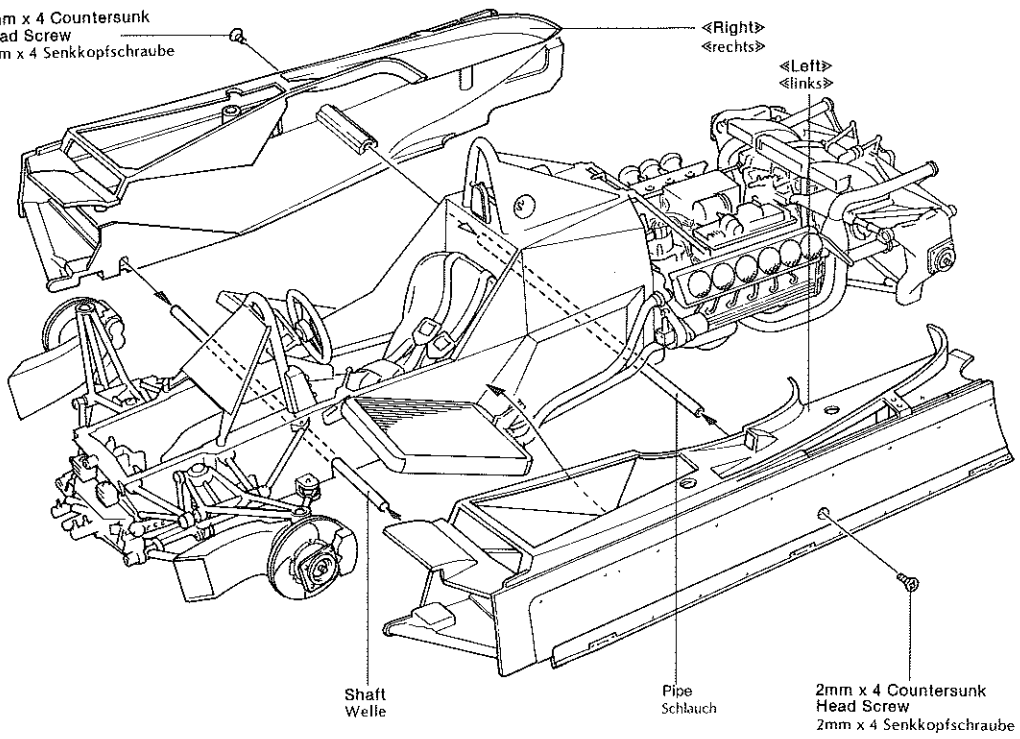
33 Assembly of Side Skirts Seitenverkleidung



34 ≪Attaching Side Pontoons≫ ≪Einbau der Seiten Pontoons≫



34 Attaching Side Pontoons Einbau der Seiten Pontoons

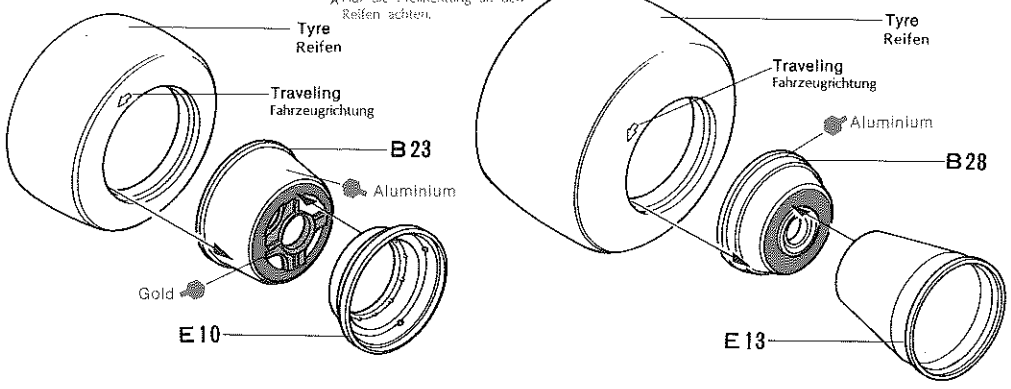


35 Wheels Räder

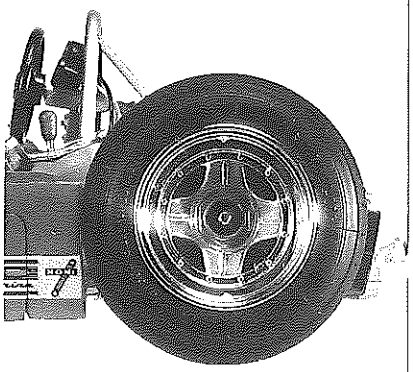
≪Front≫ ★Make 2 sets.
≪vorne≫ ★2 Satz

★Take care of each arrow on tyres when assembling wheels.
★Auf die Pfeilrichtung an den Reifen achten.

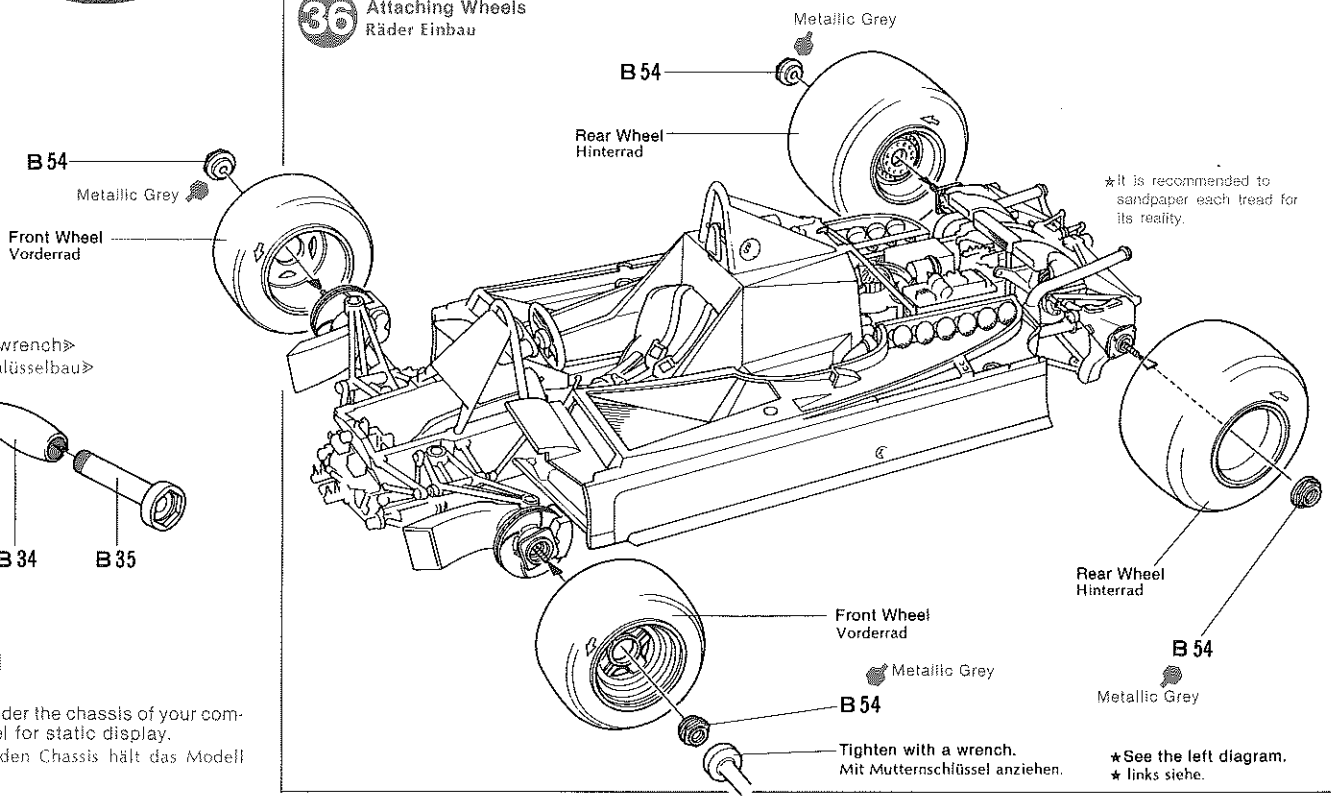
≪Rear≫ ★Make 2 sets.
≪hinten≫ ★2 Satz



36 ≪Attaching Wheels≫ ≪Räder Einbau≫



36 Attaching Wheels Räder Einbau



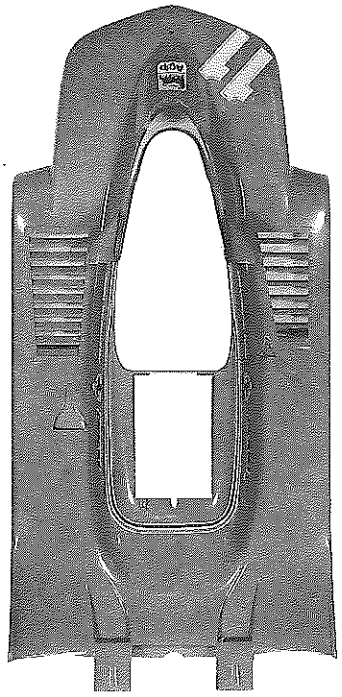
≪Making a wrench≫
≪Mutternschlüsselbau≫



G1

★Use G1 under the chassis of your completed model for static display.
★G1 unter den Chassis hält das Modell gerade.

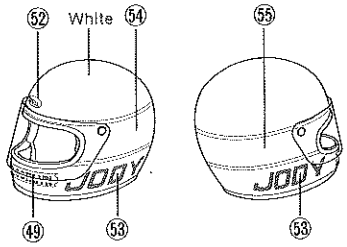
38 ≪Cockpit Cowling: outside≫
≪Cockpit Verkleidung: aussen≫



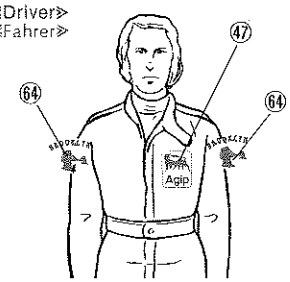
≪Driver's Decal≫
≪Abziehbilder für Fahrer und Helm im Kit≫
Decals for a driver and his helmet are contained in this kit, but the figure and helmet are not.
Fahrer und Helm im Kit nicht enthalten.

J. Scheckter

≪Helmet≫
≪Helm≫

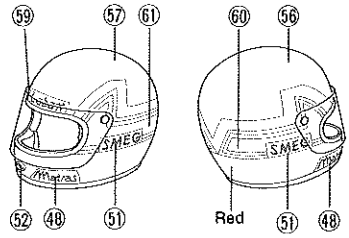


≪Driver≫
≪Fahrer≫

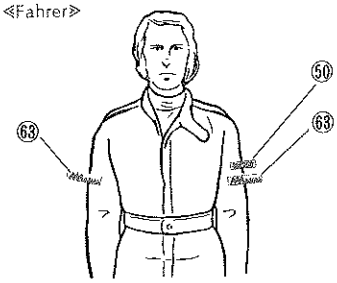


G. Villeneuve

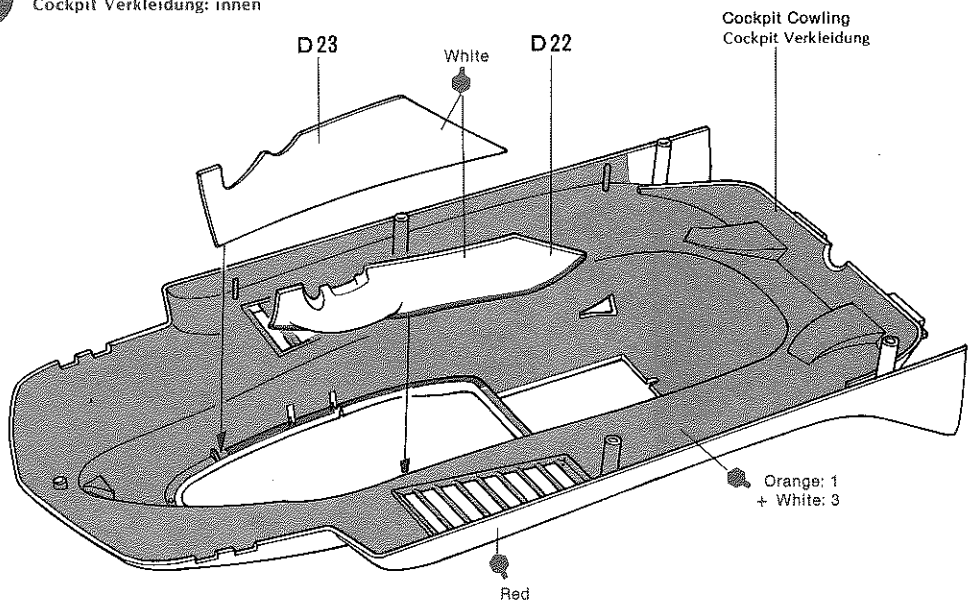
≪Helmet≫
≪Helm≫



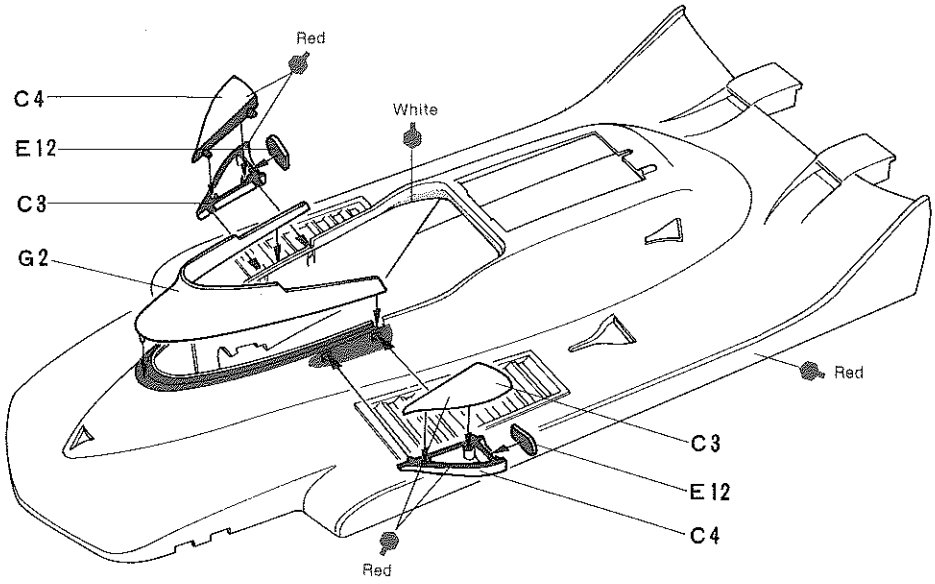
≪Driver≫
≪Fahrer≫



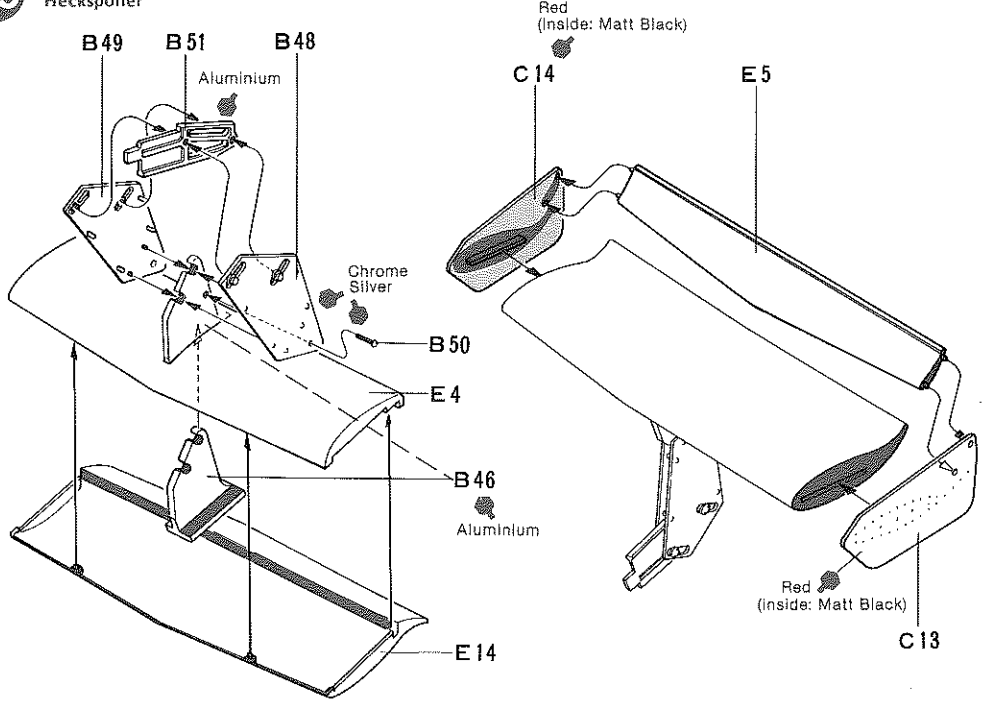
37 Cockpit Cowling: inside
Cockpit Verkleidung: innen



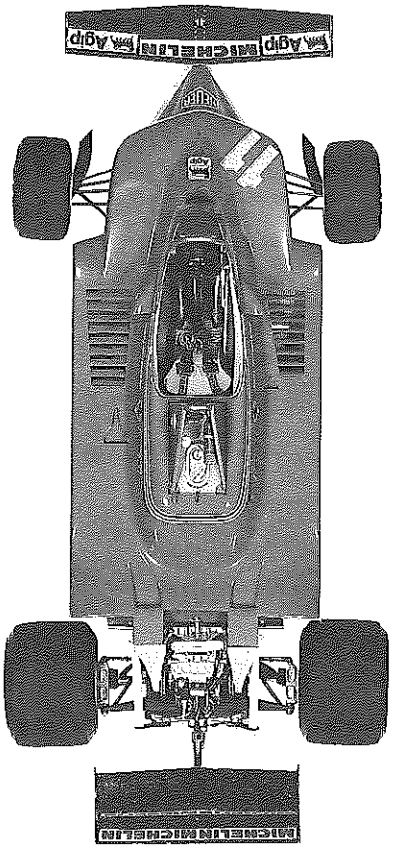
38 Cockpit Cowling: outside
Cockpit Verkleidung: aussen



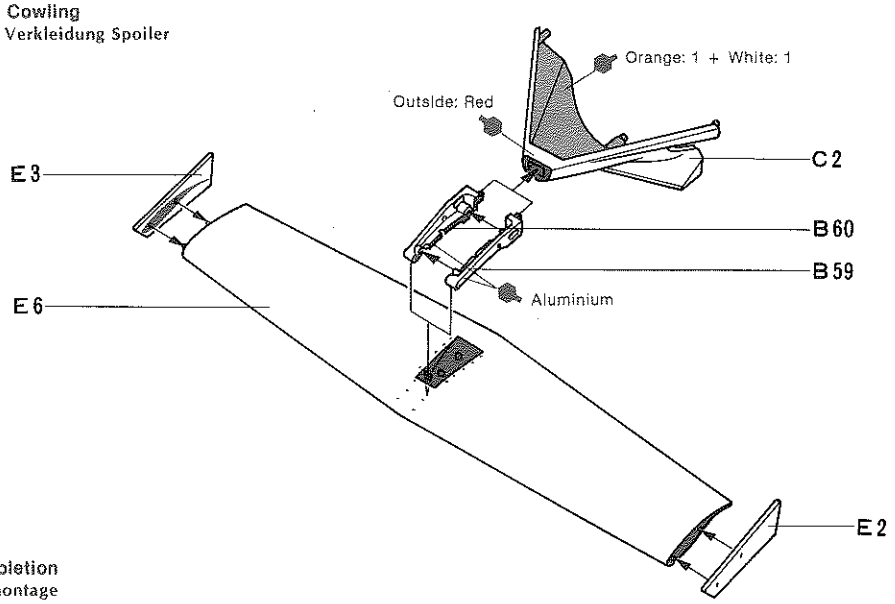
39 Rear Wing
Heckspoiler



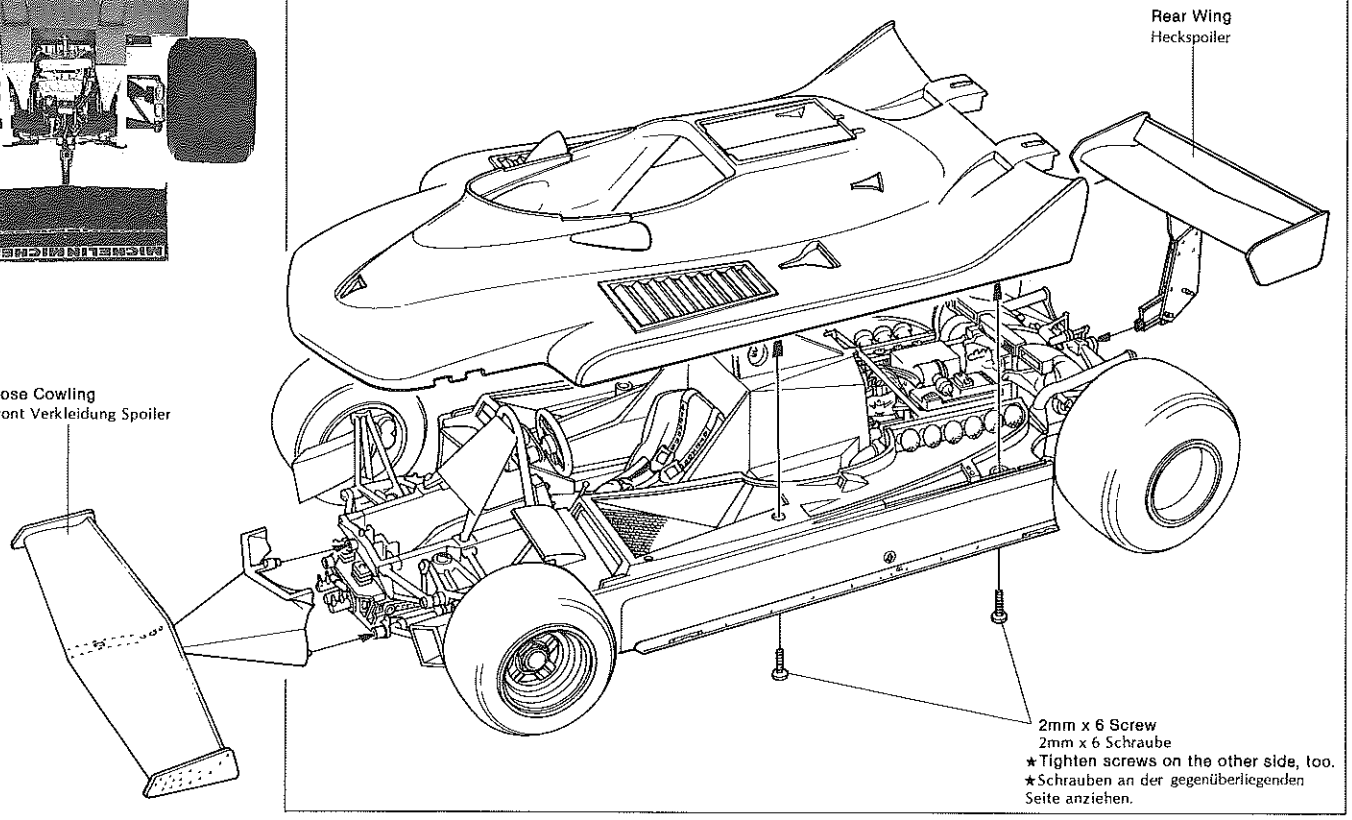
41 ≪Completion≫
≪Endmontage≫



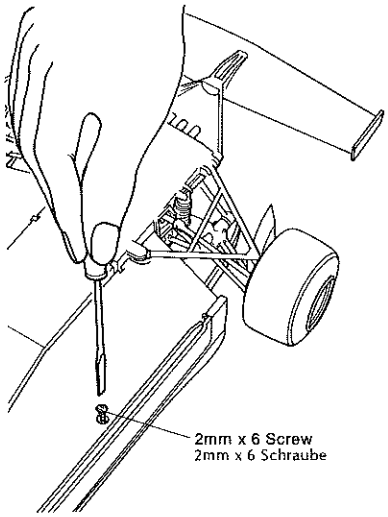
40 **Nose Cowling**
Front Verkleidung Spoiler

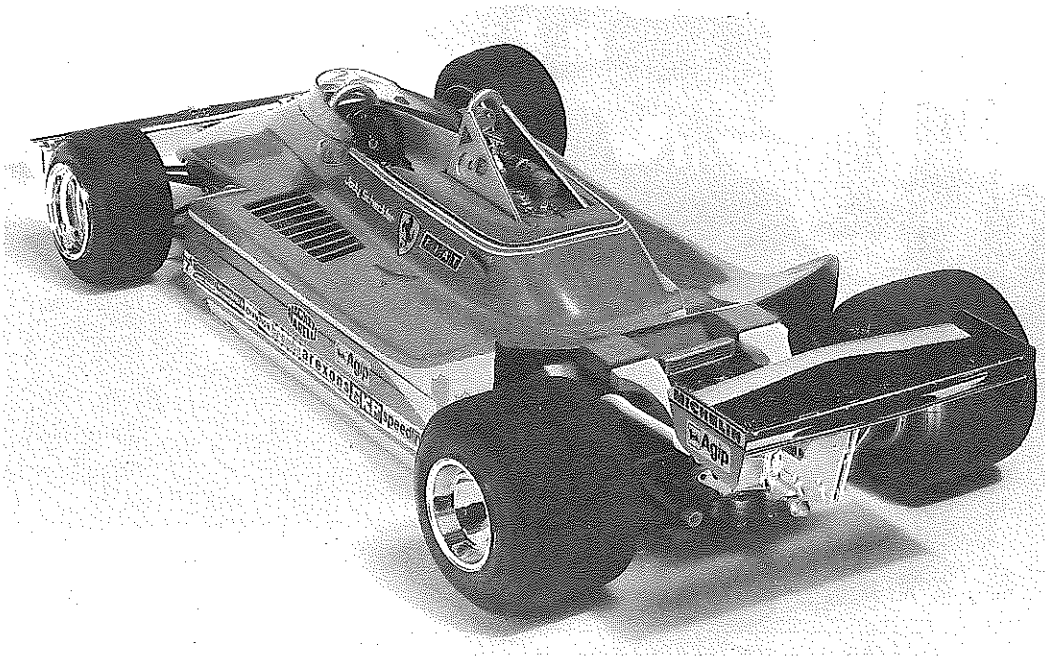


41 **Completion**
Endmontage



≪Tightening screw≫
≪Schrauben anziehen≫





PAINTING & APPLYING DECALS

<PAINTING OF FERRARI 312T4>

The Ferrari 312T4 made its debut at the 1979 South African Grand Prix and that year won the Manufacturers Championship and, with Jody Scheckter at the wheel, also the F1 Drivers Championship. The basic colour of the car is a brilliant red, the Italian national colour. Thin white stripes are painted on the body side and along the front edge of the body cowling. Stripes of green, white and red are applied to the upper body cowling behind the cockpit. The Ferrari symbols of the prancing horse are placed next to the lettering of the car driver's name on either side of the car. No. 11 car was driven by Jody Scheckter, No. 12 car by Gilles Villeneuve. These numbers are placed on the front and on either side of each car. For detailed painting refer to the instructions. Do not spray any of the decals in this kit with clear lacquer.

<Bemalung des Ferrari 312T4>

Der Ferrari 312T4wurde erstmals 1979 im Grand Prix von South Africa vorgestellt und gewann die Hersteller-Meisterschaft und auch die Formel 1 Fahrer-Meisterschaft mit Jody Scheckter am Steuer.

Die Grundfarbe ist brilliant-rot, die Nationalfarbe Italiens. Dünne, weisse Streifen sind auf den Karosserieseiten und auch an den Frontkanten der Verkleidung gezogen. Streifen in grün, weiss und rot sind hinter dem Cockpit. Das Markenzeichen von Ferrari, das sich aufbäumende Pferd, ist auf beiden Seiten in der Nähe des Fahrernamens Vorne und an den Seiten ist die Nummer 11 für Jody Scheckter oder No. 12 für Gilles Villeneuve angebracht.
Detailbemalung siehe Anleitung.
Abziehbilder nicht mit Klarlack besprühen!

<Before painting>

Remove all dust, dirt and adhesive smears before attempting any painting. Remember painting does not generally hide bad workmanship. As previously mentioned, remove excessive glue or joins with a file, sharp knife or very fine emery cloth. Most parts are best painted after assembly, but some inaccessible parts may be painted before removing from the sprue.

<Vor dem Malen>

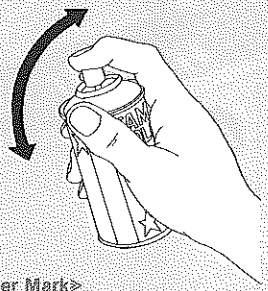
Soll man Staub und Leimreste entfernen. Auch eine gute Bemalung verdeckt nicht schlechte Bauarbeit. Unebenheiten mit Feile oder Klinge entfernen. Viele Teile lassen sich erst nach dem Zusammenbau bemalen, jedoch die kleinen Teile bemalt man am besten am Spritzling.

<Spray Painting Hints>

Firstly always spray indoors in windless and dust-free conditions. Spread newspaper under your work. Mix the paint well by shaking the can for three minutes and then test spray against some cardboard from about 20 cm, checking that the paint is properly mixed. When spraying the body, hold the can about 20 cm from the plastic, moving the can quickly always in the same direction and ensure every application. A good tip is to imagine you are spraying a large surface, i.e. the surrounding newspaper, you will then probably achieve a more even finish.

<Bemalung mit Sprayfarben>

Nur in zug-und staubfreien Räumen spritzen. Teile auf ausgebreitete Zeitung stellen. Spraydose gut durchschutteln (3 Min) und durch Spritzen auf Karton prüfen, ob Farben gut gemischt ist. (20 cm Abstand). Das modell in gleicher Richtung grossflachig bespruhen. Keine Sprayfarben auf Nitrobasis sondern nur Sprayfarben für Polystryrol Plastik verwenden.



<Dealer Mark>

France G.P.



British G.P.



Long Beach G.P.



Belgian G.P.



<Decal Application>

① Remove all dust, dirt and adhesive smears with a wet cloth before applying any decals.
② The decal to be applied should be removed beforehand from the decal sheet. Cut off translucent films along coloured parts.
③ Dip the decal in tepid water for about 10 seconds and then remove it onto a clean cloth. Be careful of over immersion to avoid loss of decal's adhesive.
④ Hold the backing sheet edge and slide the decal onto the model.
⑤ Wet the decal with a little water on your finger so that it can be moved more easily into position.
⑥ Press the decal down gently with a clean soft cloth to remove air bubbles and until all excess water has been fully absorbed. When a decal has to be applied to a surface which is uneven or curved, press the decal down with a hot towel so that the decal will fit the contours perfectly. Cut off the excess transparent portion around each decal. The decal must then not be touched until dry.

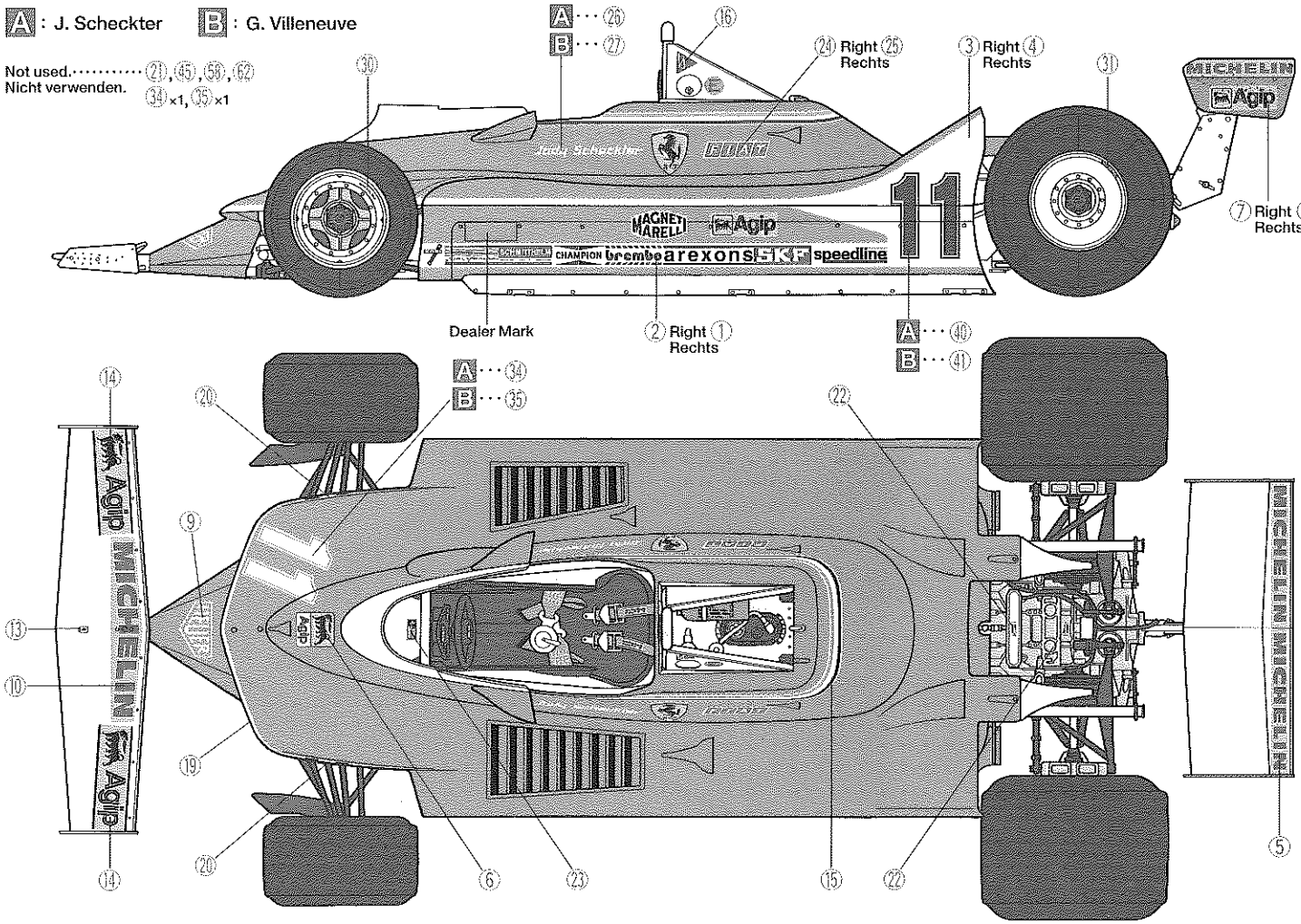
<Abziehbilder-Decals>

① Staub, Schmutz und Klebstoffreste mit nassem Tuch entfernen.
② Decals erst ausschneiden entlang den Linien.
③ Decals in Wasser legen, dann nach 10 Sekunden auf z.B. Handtuch legen und etwas abtrocknen lassen.
④ Decal an der Unterlage halten und Bild auf das Modell schieben.
⑤ Mit etwas Wasser auf dem Finger lässt sich das Decal noch etwas verschieben.
⑥ Decal mit etwas Stoff gut andrücken, um die Luftblasen zu entfernen und das Wasser abzutrocknen. An unebenen Stellen kann man mit heissen Tuch das Decal besser andrücken. Transparente Überreste am Decal abschneiden. Decal nicht mehr berühren, bis getrocknet ist.

MARKING

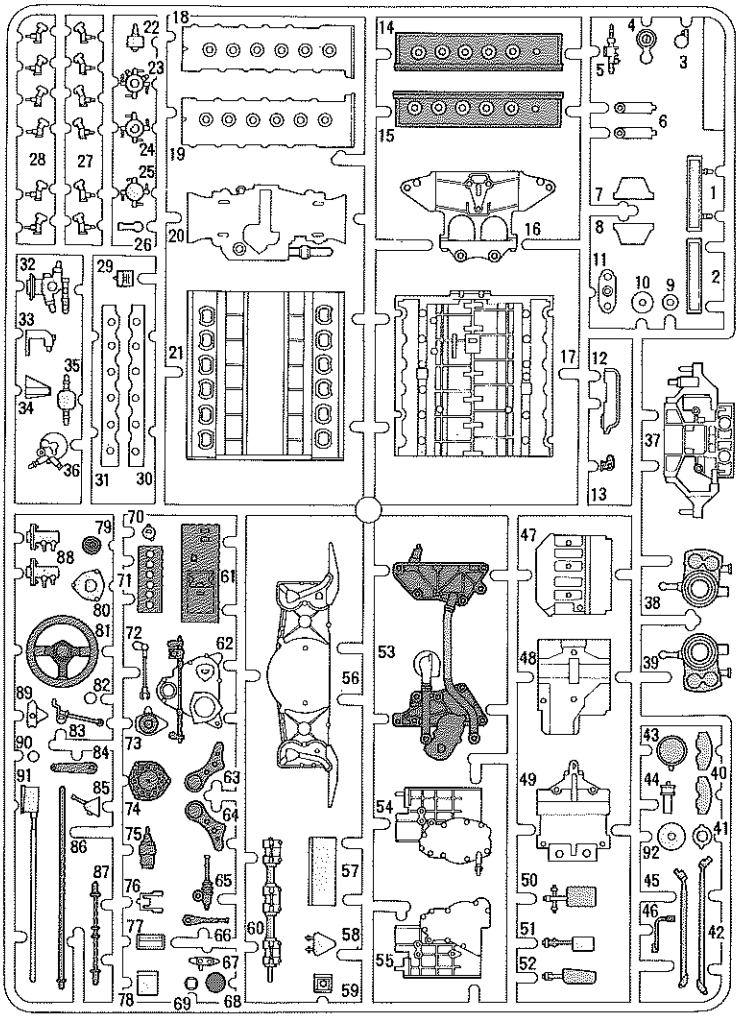
A : J. Scheckter B : G. Villeneuve

Not used. ····· ㉑, ㊺, ㊾, ㊷
Nicht verwenden. ㉞×1, ㉟×1



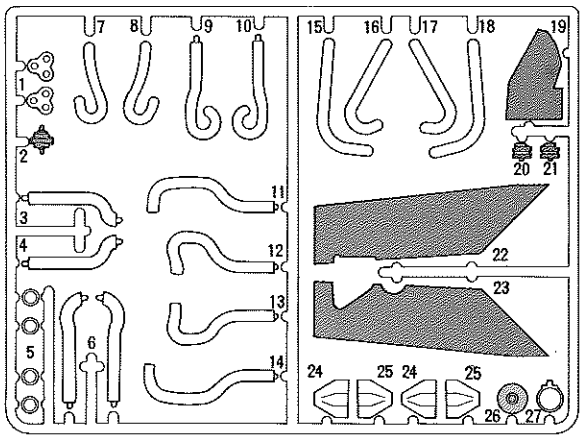
A Parts

- Aluminium + Orange
- Lemon Yellow + Aluminium
- White + Dark Yellow
- Chrome Silver
- Aluminium
- Semi-gloss Black
- Matt Black
- Gun Metal

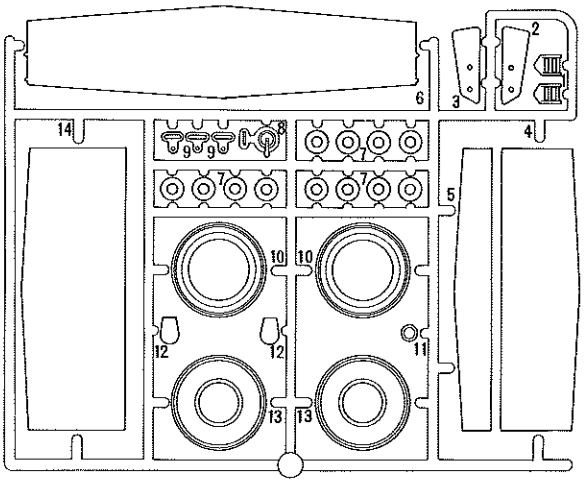


D Parts

- White
- White + Chrome Silver
- Aluminium
- Chrome Silver (Inside: White)

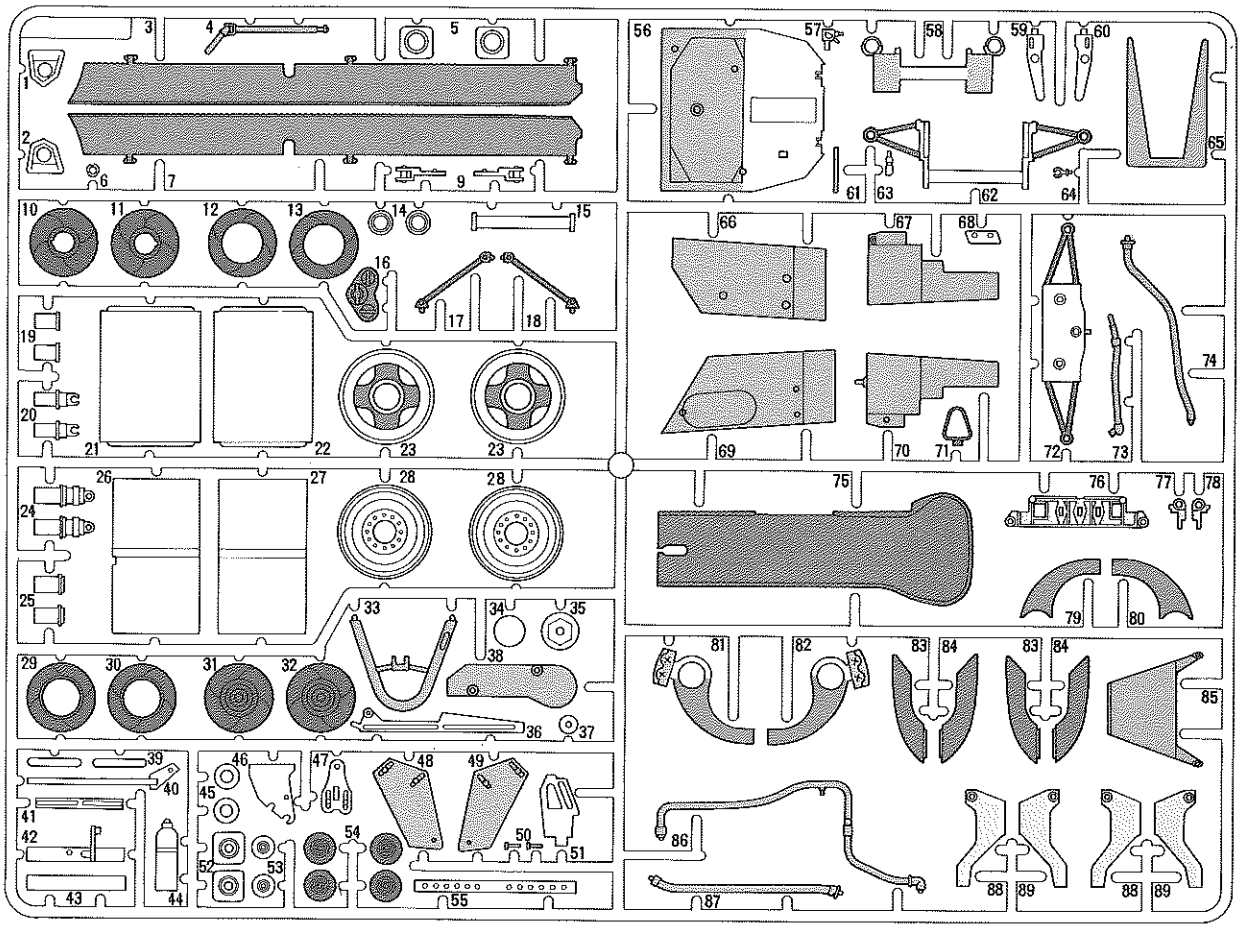


E Parts (Plated)



B Parts

- Aluminium
- Metallic Grey
- Chrome Silver
- White + Dark Yellow
- Semi-gloss Black
- Gold
- Aluminium + Orange
- Gun Metal



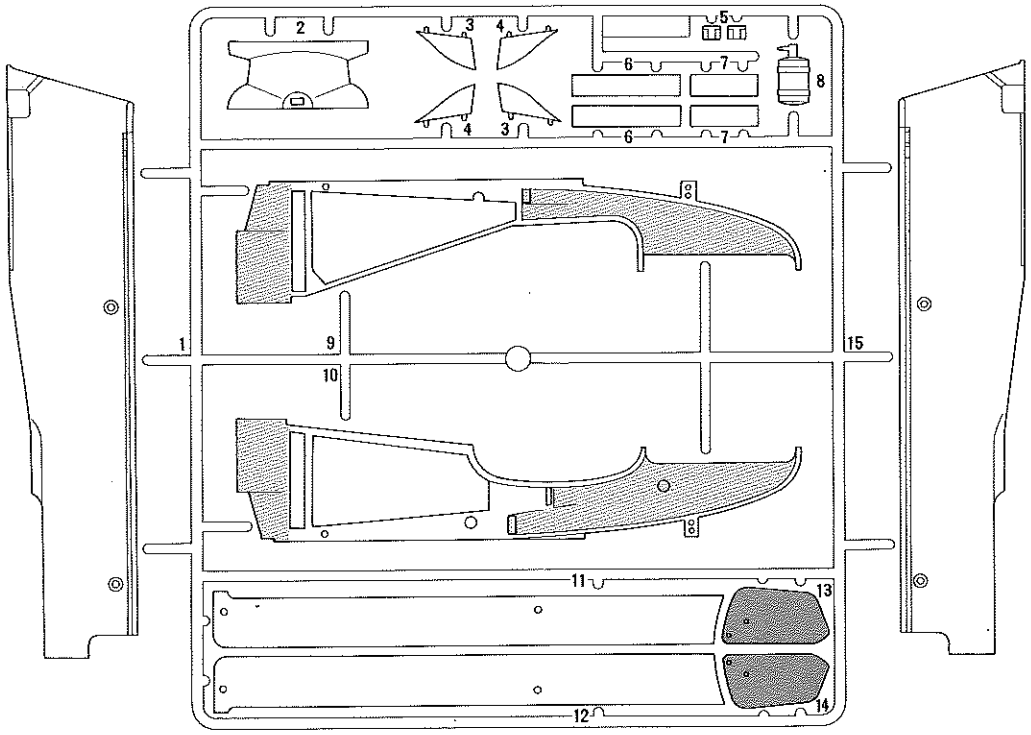
C Parts

Red

Orange + White

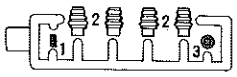
Aluminium

Red (Inside: Matt Black)

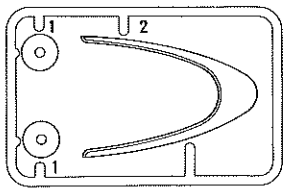


N Parts

:not used

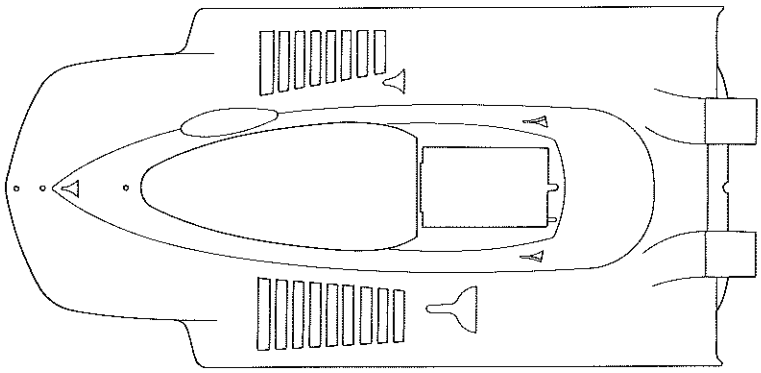


G Parts



Cockpit Cowling

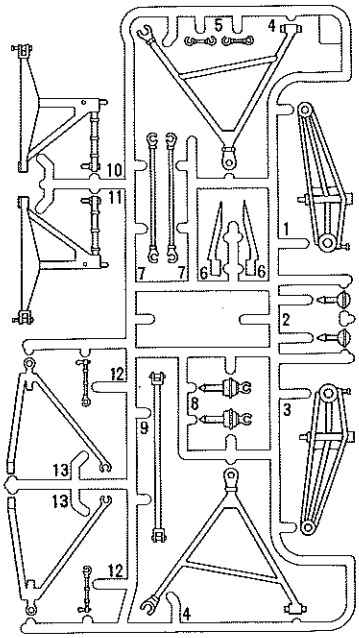
Red



F Parts

Semi-gloss Black

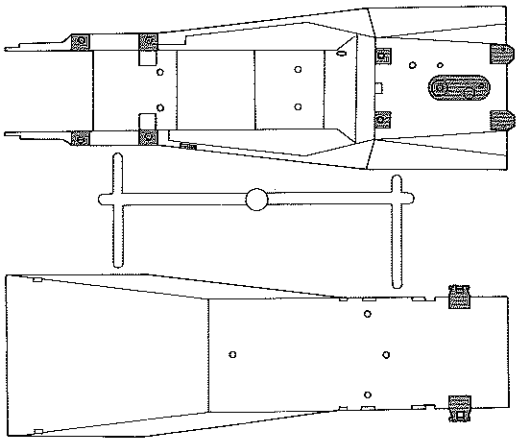
Aluminium



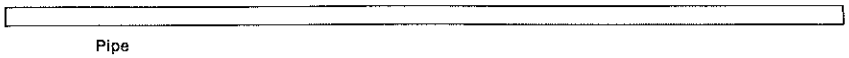
Chassis

Chrome Silver

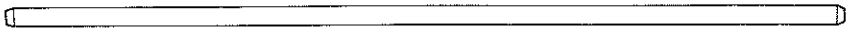
Gun Metal



M Parts



Pipe



Shaft

2mm x 4 Countersunk Head Screw

2mm x 4 Screw

2mm x 6 Screw

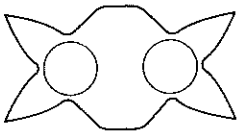
2mm x 10 Screw

Coil Spring (small)

Coil Spring (large)

2mm Nut (large)

2mm Nut (small)



Mesh

Black Vinyl Tubing (thin)
Black Vinyl Tubing (thick)
Black Vinyl Tubing (medium)
Transparent Tubing
Vinyl Coated Wire
Front Tyre
Rear Tyre
Decal
Seat Belt Sticker

TAMIYA

312T4

1979 CHAMPION CAR

TAMIYA

1/12ビッグスケールシリーズ フェラーリ 312T4

1979年 チャンピオンカー

エッチングパーツのとりつけは、こちらの説明図を参考にしてください。
Refer to this manual for photo-etched parts.
Beachten Sie die Anleitung für die Fotogeätzte Teile.

⚠ 注 意

●工具の使用には十分注意してください。特にナイフ、ニッパーなどの刃物によるケガや事故に注意してください。
●接着剤や塗料は使用する前にそれぞれの注意書きをよく読み、指示に従って正しく使用し、使用するときは換気に十分注意してください。
●小さなお子様のいる所での工作はやめてください。小さな部品の飲み込みや、ビニール袋をかぶっての窒息などの危険な状況が考えられます。

⚠ CAUTION

●When assembling this kit, tools including knives are used. Extra care should be taken to avoid personal injury.
●Read and follow the instructions supplied with paints and /or cement, if used (not included in kit). Use plastic cement and paints only.
●Keep out of reach of small children. Children must not be allowed to put any parts in their mouths, or pull vinyl bag over the head.

⚠ VORSICHT

●Beim Zusammenbau dieses Bausatzes werden Werkzeuge einschließlich Messer verwendet. Zur Vermeidung von Verletzungen ist besondere Vorsicht angebracht.
●Wenn Sie Farben und/oder Kleber verwenden (nicht im Bausatz enthalten),beachten und befolgen Sie die dort beiliegenden Anweisungen. Nur Klebestoff und Farben für Plastik verwenden.
●Bausatz von kleinen Kindern fernhalten. Verhüten Sie, daß Kinder irgendwelche Bauteile in den Mund nehmen oder Plastiktüten über den Kopf ziehen.

⚠ PRECAUTIONS

●L'assemblage de ce kit requiert de l'outillage, en particulier des couteaux de modélisme. Manier les outils avec précaution pour éviter toute blessure.
●Lire et suivre les instructions d'utilisation des peintures et ou de la colle, si utilisées (non incluses dans le kit). Utilisez uniquement une colle et des peintures spéciales pour le polystyrène.
●Garder hors de portée des enfants en bas âge. Ne pas laisser les enfants mettre en bouche ou sucer les pièces, ou passer un sachet vinyl sur la tête.

PHOTO-ETCHED PARTS

《エッチングパーツ》
①切りはなす時はカッターナイフなどを使用してパーツを切りはなします。
②塗装が必要なパーツは下地にメタルプライマーを吹きつけてから塗装します。
③切り出した時、部品に出っ張った部分が残っている場合は、ヤスリなどで丁寧に削り落とします。
●エッチングパーツはたいへん薄く、手などを切る恐れがあります。取り扱いには十分注意してください。

PHOTO-ETCHED PARTS
①Cut off photo etched parts using a modeling knife.
②Apply metal primer prior to painting.
③Carefully remove any excess using a file.
●Extra care should be taken to avoid personal injury when handling photo-etched parts.

FOTOGEÄTZTE TEILE
①Die fotogeätzten Teile mit einem Modellbaumesser abschneiden.
②Vor dem Lackieren Metall-Grundierung auftragen.
③Überstände vorsichtig mit einer Feile entfernen.
●Beim Umgang mit fotogeätzten Teilen sollte man besondere Vorsicht walten lassen, um Verletzungen zu vermeiden.

PIÈCES PHOTO-DÉCOUPÉES
①Détacher les pièces photo-découpées avec un couteau de modéliste.
②Appliquer de l'apprêt pour métal Tamiya avant de peindre.
③Enlever les parties excédentaires en les limant soigneusement.
●Manipuler les pièces photo-découpées avec précaution pour éviter les blessures.

《瞬間接着剤について》

★通常は塗装する前に使用します。その際、接着面の油分を十分に取ってください。塗装後に接着する場合は接着面の塗料を落としてから使用します。この時、塗料が残っていると接着力が極端に低下するので注意しましょう。
★接着剤をつけすぎると接着力が落ちるだけでなく、白化しやすくなるので注意してください。
★劣化した接着剤は使用しないでください。
不要な部品で試してから使用してください。
★使用する際は瞬間接着剤の取扱説明をよく読んでからご使用ください。

INSTANT CEMENT
★Remove any paint or oil from cementing surface before affixing parts.
★Use only a small amount of cement. Too much cement will make joints turn white and lose adhesion.
★Do not use old cement. Test cement first with unnecessary parts such as sprues before use.
★Carefully read instructions on use before cementing.

SEKUNDENKLEBER
★Entfernen Sie alle Farbe und Ölflecke von der Klebeoberfläche bevor sie Teile ankleben.
★Verwenden Sie nur geringe Mengen Klebstoff. Bei zuviel Klebstoff kann sich die Verbindung verschieben und die Haftkraft verloren gehen.
★Verwenden Sie keinen alten Klebstoff. Testen Sie den Kleber vor der Anwendung zuerst mit nicht benötigten Teilen etwa vom Spritzling.
★Vor dem Kleben die Gebrauchsanleitung sorgfältig lesen.

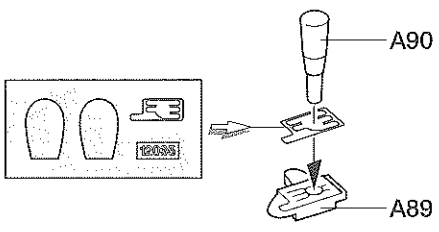
COLLE RAPIDE
★Enlever les traces de peinture ou de graisse des surfaces de contact avant de coller les pièces.
★N'utiliser qu'une petite quantité de colle. Un excès peut blanchir les lignes de joint et limiter l'adhésion.
★Ne pas utiliser une colle périmée. Tester la colle sur des pièces inutilisées comme des morceaux de grappes avant utilisation effective.
★Lire soigneusement les instructions avant de coller.

ASSEMBLY

指示のエッチングパーツをはります。
Attach photo-etched parts.
Die Fotogeätzten Teile anbringen.
Fixer les pièces photo-découpées.

指示の部品を瞬間接着剤でとりつけます。
Apply instant cement.
Sekundenkleber auftragen.
Appliquer de la colle rapide.

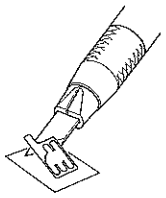
2 ペダルのとりつけ
Pedal
Pedalbau



指示のインレットマークをはります。
Apply metal transfer.
Metall-Sticker anbringen.
Apposer le transfert métal.

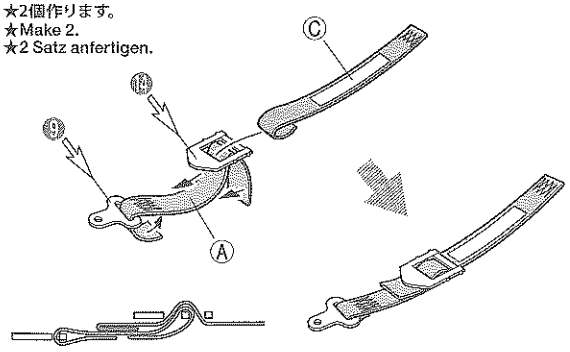
《インレットマーク》
Metal transfer
Metall-Sticker

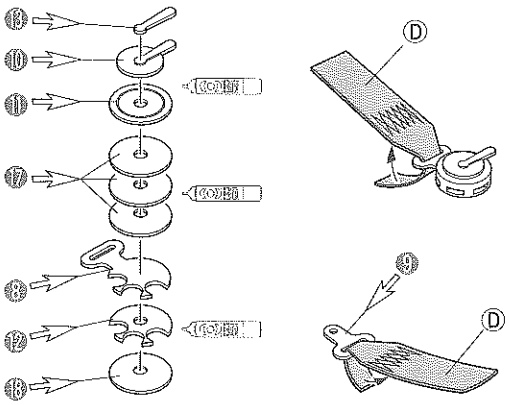
★表面の透明なフィルムをめくり、ナイフなどではがして使います。
★Peel off the transparent film and handle metal transfers using a knife.
★Den transparenten Film abziehen und Metall-Sticker mit einem Messer übertragen.



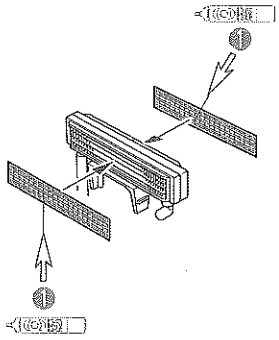
3 シートベルトのくみたて
Seat belt
Sitz-Gürtel

★2個作ります。
★Make 2.
★2 Satz anfertigen.

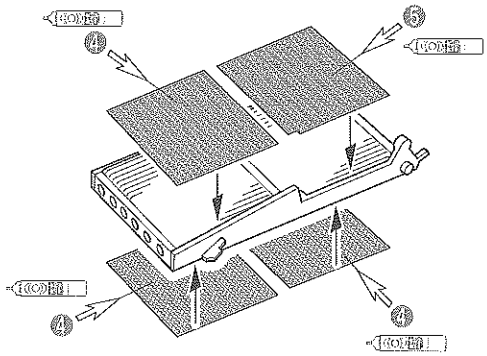


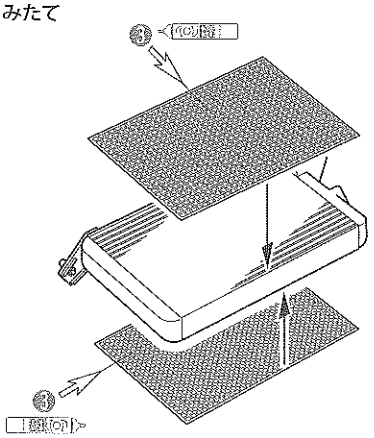


16 ミッションオイルクーラーのくみたて
Oil cooler of Gear Box
Getriebe Öl kühler

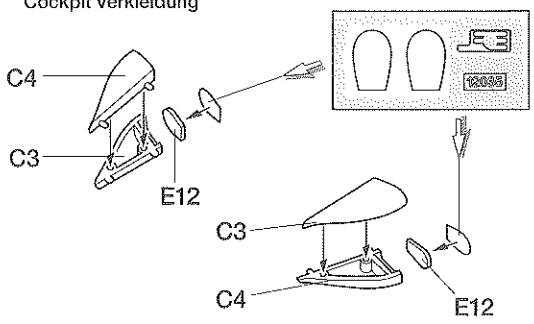


28 レジエター、オイルタンクのくみたて
Radiator
Kühler

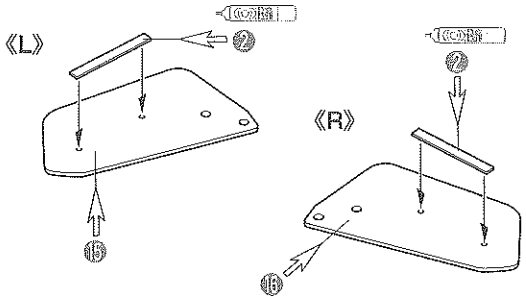




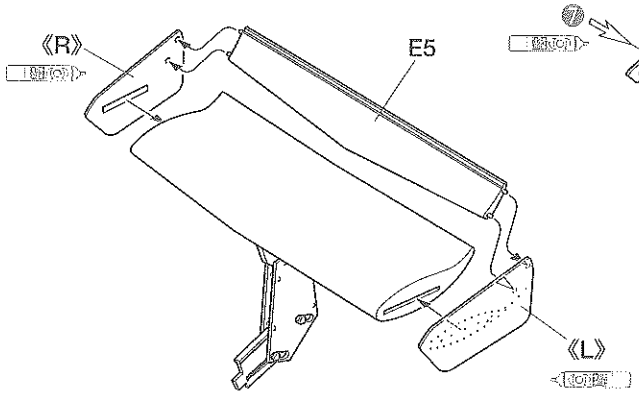
38 ボディカウルのくみたて
Cockpit Cowling
Cockpit Verkleidung



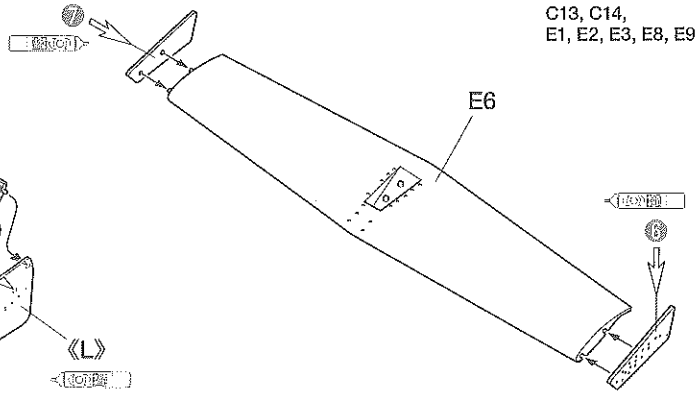
39 リヤウイングのくみたて 1
Rear Wing 1
Heckspoiler 1



39 リヤウイングのくみたて 2
Rear Wing 2
Heckspoiler 2



40 ノーズウイングのくみたて
Nose Cowling
Verkleidung Spoiler



不要部品
Not used.
Nicht verwenden.
Non utilisées.
.....
C13, C14,
E1, E2, E3, E8, E9